B4102010/Rev. 00
October 2002

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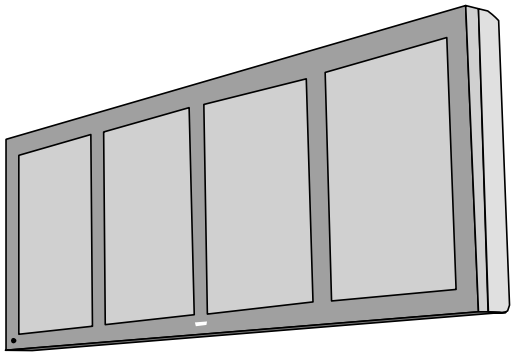
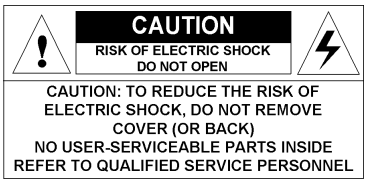


IMAGETILE® Softcopy Digital Lightbox

System Manual

SAFETY INSTRUCTIONS



• Read the safety and operating instructions before operating the apparatus.
• Retain safety and operating instructions for future reference.
• Adhere to all warnings on the apparatus and in the operating instructions manual.
• Follow all instructions for operation and use.

•This apparatus conforms to: UL 2601-1, c-UL CAN/CSA-C22.2 No. 601.1-M90, IEC 601-1, CE, EN55011 Limit A, FCC Class A, IEC 601-1-2
(only if connected PC complies to EN 55011 limit B, FCC class B and CE)

Usage in Hazardous locations
• Class I equipment
• Equipment **not** suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxyde.

FCC notice
This equipment has been tested and found to comply with the limits of a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Power connection
• Power cord: Utilise a UL-listed detachable power cord, 3-wire, type SJ or equivalent, 18 AWG min., rated 300 V min., provided with a hospital-grade type plug 5-15P configuration for 120V application, or 6-15P for 240V application.
• **Warning:** This apparatus must be earthed!
• Power requirements: connect the apparatus to an AC voltage as indicated at its back. Using a lower voltage, the apparatus will not be able to operate. Using a higher voltage may damage the apparatus.
If you are not sure of the type of power supplied, consult the power company.
• Do not overload wall outlets and extension cords as this may result in fire or electric shock.
• Mains lead protection (U.S.: Power cord): Supply cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them, paying particular attention to cords at plugs and receptacles.

Water and moisture
• Degree of protection against ingress of water: Ordinary.
• Never expose the apparatus to rain or moisture.
• Never use the apparatus near water - e.g. near a bathtub, washbasin, swimming pool, kitchen sink, laundry tub or in a wet basement.

Ventilation
• Do not cover or block the ventilation openings in the cover of the set. When installing the apparatus in a cupboard or another closed location, heed the necessary space between the set and the sides of the cupboard.

Installation
• Place the apparatus on a flat, solid and stable surface that can bear the weight of at least 3 monitors. If you use an unstable cart or stand, the set may fall, causing serious injury to a child or adult, and serious damage to the equipment.
More warnings in the Installation chapter.

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OVERVIEW

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INTRODUCTION

ImageTile installation overview

To install the ImageTile system completely, you have to follow these steps:

1 Install the imaging board(s) in the PC

2 Install the ImageTile and connect the signals from the PC

3 Install the BarcoMed driver software

4 Setup Sentinel

5 Install the MediCal software

6 Use MediCal

ImageTile features

ImageTile

For enterprise-wide image distribution in a softcopy reading environment, Barco has designed IMAGETILE®. This digital lightbox system, combining 20.8" portrait LCD displays, 10-bit graphics controllers and MEDICAL® Pro QA management software, offers unprecedented image quality for accurate diagnoses (quad-head system with 6144 x 2048 pixels or dual-head system with 3072 x 2048 pixels).

IMAGETILE® can be used in PACS reading rooms as well as any location where softcopy images are required, such as ER, OR and internist rooms.

IMAGETILE® can be a dual-head or quad-head system.

Sentinel

The built-in SENTINEL® board and software turn IMAGETILE ® into an intelligent, web-enabled device, which can be addressed via the facility network through a user-friendly browser interface.

Thanks to Sentinel, you can consult a number of the panel's settings online, on any PC connected to the network.

Moreover, Sentinel can generate e-mails to user-defined addresses in case a setting exceeds a warning or error tolerance level.

I-Guard

I-GUARD® is Barco's patent-pending, built-in calibration device, continuously maintaining image quality. With I-GUARD®, QA checks no longer need to disturb normal radiology activities, as they can be performed while applications are running.

I-GUARD® allows radiologists or QA administrators to calibrate their viewing stations or adjust the panel's curve to DICOM standards without administrator intervention.

MediCal Pro

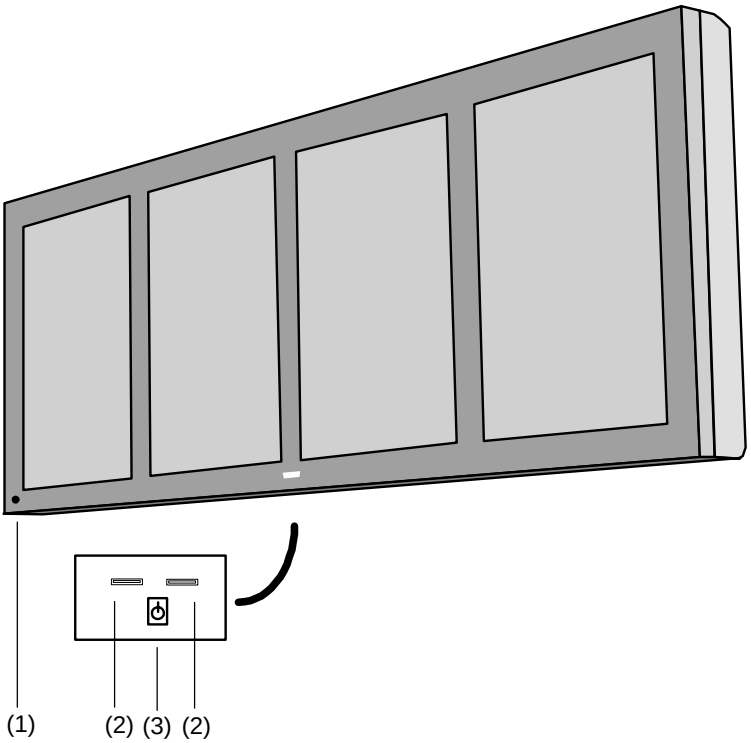
In combination with Barco's MEDICAL ® QA management and calibration software package, IMAGETILE® offers a truly intervention-free display system, making it possible to perform QA checks from one central server at any time, thereby reducing lifecycle cost.

Package contents

The package should include the following items, please check. If some of the items are missing, please contact the reseller you have purchased the unit from.

- The ImageTile panel
- Wall-mounting bracket
- 1 (for dual-head) or 2 (for quad-head) BarcoMed 3MP2FH imaging board(s)
- 1 CD containing the BarcoMed imaging board driver software
- 1 CD containing the Sentinel board driver software
- MediCal Pro software package
- European power cord
- American power cord
- Video cable
- USB cable
- This user manual

CONTROLS AND CONNECTORS

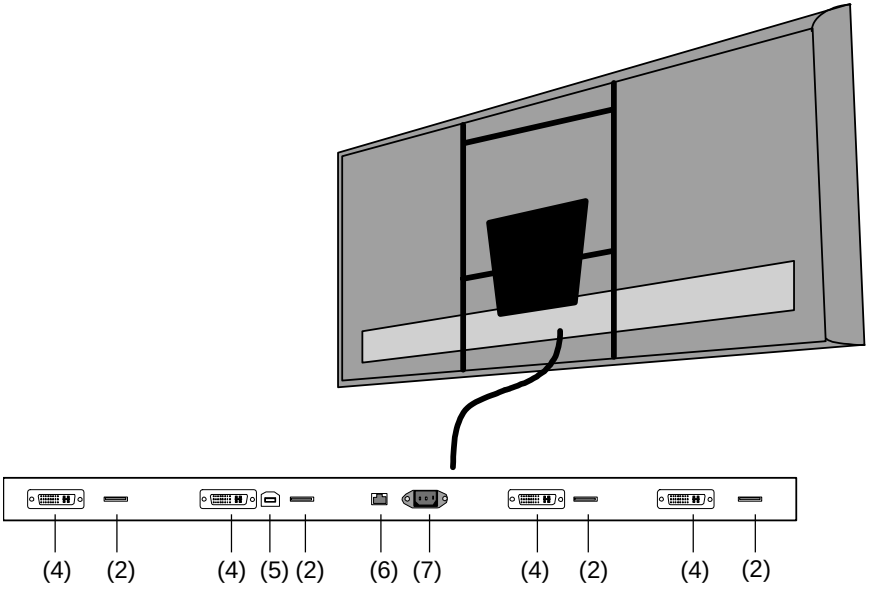


(1) Power LED

- The LED is off when the display is plugged out from power.
- The LED is green when the display is on.
- The LED is red when the display is in Stand-by power-saving mode.

(2) USB-downstream connector

(3) Soft switch: Press the switch to switch on the panel. Press the switch again to switch the panel in stand-by.



(2) USB-downstream connector (1 per head)

(4) DVI (video and data) input (1 per head)

(5) USB-upstream connector

The USB interface can be used as USB hub. If you connect the USB-upstream connector to the computer, you can use the USB-downstream connectors to plug in USB compatible devices.

(6) Network plug

(7) Power (AC) input

IMAGING BOARD INSTALLATION

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3MP2FH PRODUCT OVERVIEW

The BarcoMed 3MP2FH Graphics Controller delivers a quality 2048x1536 pixel image with 1024 simultaneous shades of gray for medical imaging applications.

Features of the BarcoMed 3MP2FH

- Dual Head Configuration
- 2048 x1536 resolution at 60 Hz
- 10 bit performance on LCD
- 32MB Video Memory
- Portrait or Landscape Mode
- 1024 Simultaneous shades of gray
- Hardware cursor
- Single slot PCI card
- Control Panel supports the English (U.S.), Dutch, German, Korean, Japanese, Simplified Chinese and Traditional Chinese languages
- Display properties control panel to dynamically change display settings

Minimum System Requirements

- PCI slot with no obstructions
- Pentium II 266 MHz with 128 MB RAM (Pentium 800MHz with 256 MB RAM for cineloops)
- PCI 2.1 and/or 2.2 Compliant
- Windows NT 4.0 Service Pack 4 and above, Windows 2000 Service Pack 1 and above or Windows XP
- Displays VGA boot messages on ImageTile displays.

Supported Resolutions For Each Head of the 3MP2FH

- 2048 x 1536 @ 60 HZ (primary)
- 1536 x 2048 @ 59 Hz

The following resolution is also available when the OS is booted in VGA mode.

- 640x480 @ Default Refresh Rate, 16 colors

System Configuration Guidelines

Because of the low power consumption and low heat generation of the 3MP2FH, multiple boards may be installed in adjacent PCI slots or adjacent to other PCI boards. Additionally there should be no need to modify either the PC's power supply and/or cooling system.

PLANNING YOUR 3MP2FH INSTALLATION

Important installation considerations

Preparations before installation

1 Make certain all equipment is switched off.

2 In case you use a PCI expansion chassis, please install it following the guidelines in its User's Guide.

3 Familiarize yourself with the 3MP2FH Imaging Board and the cables used to connect it to the display panel.

4 Read through this guide from beginning to end.

Operating system requirements

You must have **Windows NT 4** with at least **Service Pack 4, Windows 2000** with at least **Service Pack 1** or **Windows XP** installed on the PC.

BarcoMed installation overview

To install the BarcoMed Imaging Boards in your system, you have to follow these steps:

1 Install the imaging board(s) in the PC

2 Install and connect the displays to the imaging board(s)

3 Install the BarcoMed driver software

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HARDWARE INSTALLATION

Notice: Wear a protective ESD strap during installation or handling of the board. Electrostatic charges can damage the board.

Familiarizing Yourself With the 3MP2FH

Prior to installing your 3MP2FH board(s) in your PC please take a few minutes to familiarize yourself with both the board and the PCI slots in your computer**.**

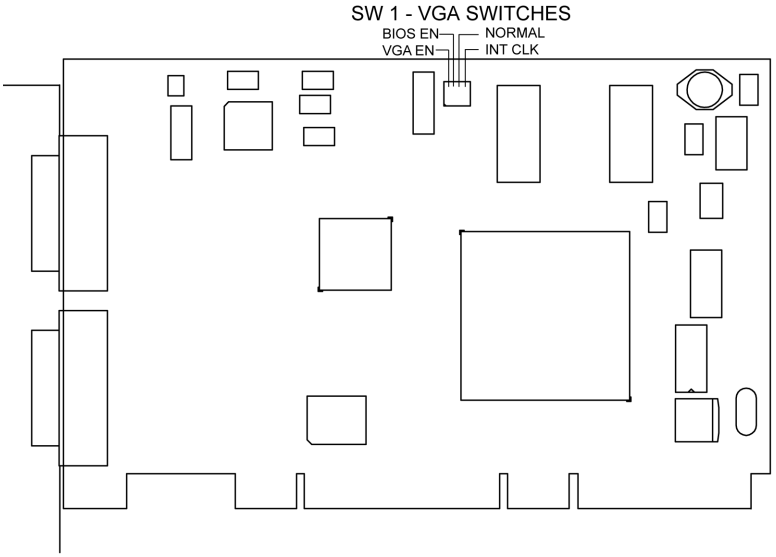

Figure 1: The 3MP2FH

Switch Locations

There are four switches located at SW1 on the 3MP2FH. The following table shows their locations and briefly describes their functions and default states.

Switch	Function
VGA EN	Enables VGA on the Primary Head (default is ON).
BIOS EN	Allows the System BIOS to read the VIDEO BIOS (default is ON).
NORMAL	Controls Board State (default is ON).
INT CLK	Internal Clock (default is ON). The switches are in the ON position when the white slider switch is positioned towards the top of the board.

Using the VGA Capabilities of the BarcoMed 3MP2FH

Prior to installing the BarcoMed 3MP2FH, decide if you are going to use its on-board VGA capabilities.

If you are, check the setting of the VGA switches on the graphics board. (See SW1- VGA switches, figure 1.) By default, VGA should be enabled.

If you decide to use a separate VGA monitor as your boot monitor, you must disable the on-board VGA capabilities of the BarcoMed 3MP2FH by setting switches #1 and #2 on the 3MP2FH board to the “off” position. The two switches are labeled “VGA EN” and “BIOS EN” respectively. Use a pen or small flat bladed screwdriver and move the white slider switch toward the bottom of the switch (towards the numbers).

NOTE: To use multiple 3MP2FHs in a single host with VGA enabled, you need to enable VGA on only ONE of the 3MP2FHs and disable VGA on ALL other BarcoMed boards.

Examples of PCI Slots

Although the BarcoMed 3MP2FH has a 64 bit PCI connector, it functions as a 32 bit board. It may be installed in either a 32 bit or 64 bit slot with no loss of functionality. Figure 2 illustrates the types of slots so that you can correctly identify which one to use for the 3MP2FH.

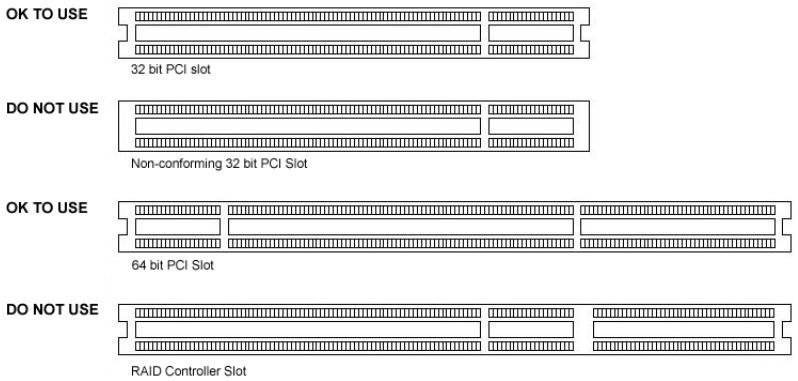

Figure 2: PCI and RAID Controller Slots

Installing the BarcoMed 3MP2FH Graphics Controller

Install the 3MP2FH into your computer following these steps:

1. Turn off the power to your computer and disconnect the power cord.
2. Remove the chassis cover according to the manufacturer's instructions. Be sure to observe safety warnings.
3. If you have decided to use the on-board VGA capabilities of the 3MP2FH (see Using the VGA capabilities of the BarcoMed 3MP2FH), you **must now remove** any VGA cards that are currently installed in the computer.
4. Install the 3MP2FH Graphics Controller into a free PCI slot, either 32 bit or 64 bit (see figure 2, for examples of slots). Be sure that the board is seated firmly in the slot.
5. Secure the card to the chassis with the PC's I/O panel mounting screw, and replace the chassis cover.
6. Connect the primary display (left most display in a linear configuration, top most in a vertical configuration) to the uppermost connector on the 3MP2FH (the output farthest from the motherboard – "**VID 1**" in figure 3) using the provided DVI cable. For a dual-headed 3MP2FH setup, connect the secondary display to the other connector on the board.
7. Reconnect the power cord, turn on the power, and boot the system as usual.

Running Multiple BarcoMed 3MP2FH Boards in a Single Host

The physical order of the displays may vary when you are running multiple BarcoMed 3MP2FH boards. This is due to the PC's PCI bus control in the system BIOS, and not the BarcoMed board. It may become necessary, depending on how your PC's BIOS configures the PCI bus, to switch your DVI display connections to achieve a linear desktop configuration.

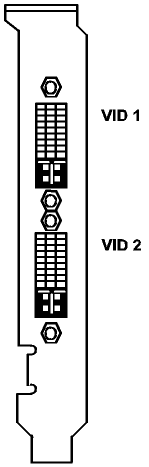

Figure 3: The Video Outputs.

IMAGETILE DISPLAY PANEL INSTALLATION

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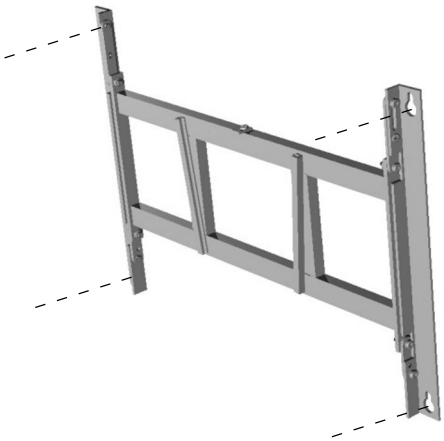
PRECAUTIONS

- Keep your original packaging. It is designed for this product and is the ideal protection during transport.
- Avoid reflections in the flat panel to reduce eye strain.
- The wall to which you mount the panel must be strong, stable and solid enough.
- Keep the display away from heat sources and provide enough ventilation.
- Make sure the computer is switched off before connecting the signals.
- Because of the weight of the panel and the used method of mounting, mounting and removing the panel should be done with 2 persons at least.

WALL MOUNTING

Mounting the wall bracket

The standard way of mounting the panel is wall mounting. Therefore, a wall mounting bracket is delivered with the panel. To mount the panel to the wall, you must first fix the bracket to the wall.



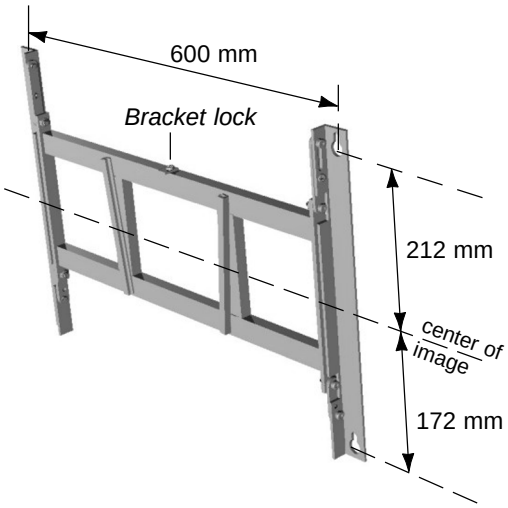
Bracket mounting instructions

- The wall must be a solid concrete wall.
- The wall must be strong enough to bear a weight of at least 4 times the panel you are installing. Please refer to the Technical specifications chapter to know the weight of the panels.
- Screws must be size M8, 8 cm long
- The screws must be matched to be used in concrete.
- Use 4 screws: One for each suspension hole. Do not leave any of the suspension holes open.

Mounting height

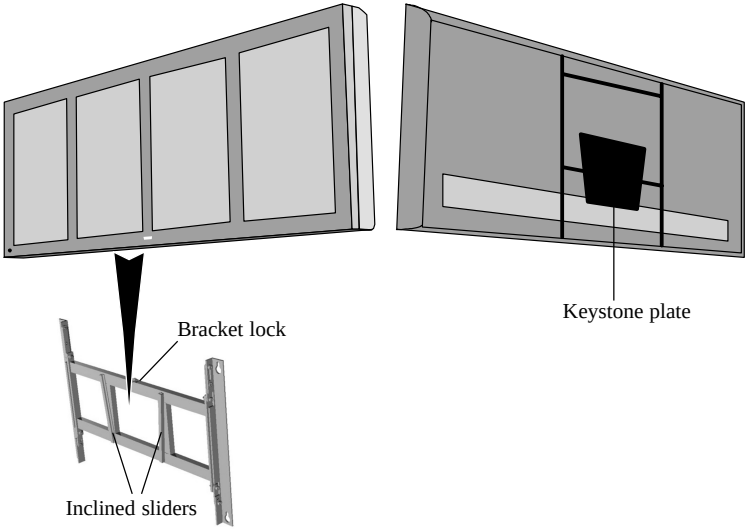
We advise to mount the panel so that the center (in vertical sense) is at eye level.

The location of the fixation holes with respect to the vertical center of the ImageTile image, is indicated in the following illustration.



Fixing the panel to the wall bracket

- The wall bracket has 2 inclined sliders.
- The rear of the panel is provided with a 'keystone' metal plate.
- Mount the panel so that the 'keystone' plate slides into the inclined sliders.
- Lock the panel in its position by turning the bracket 'lock' 1 quarter-turn.



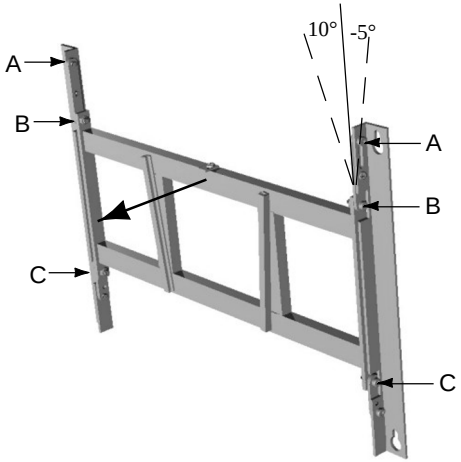
Tilting the panel

You can tilt the panel in two directions: forward (+10%) and back (-5%)

To tilt the panel forward (+10%)

To tilt the panel, proceed as follows:

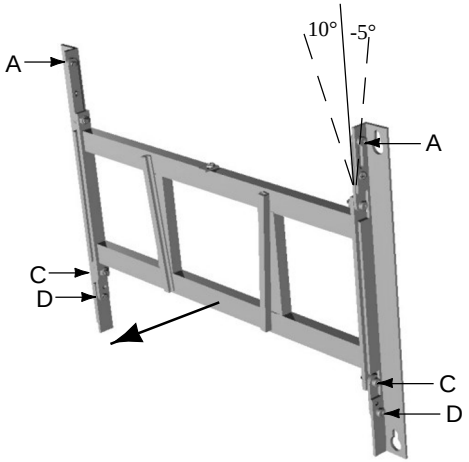
1 Loosen the bolts (A)
2 Loosen the bolts (B) a little bit
3 Loosen the bolts (C) a little bit
4 Pull the top of the ImageTile panel forward
5 Fix the bolts (A, B, C) again



To tilt the panel backward (-5%)

To tilt the panel, proceed as follows:

1 Loosen the bolts a little bit (A)
2 Loosen the bolts (C)
3 Loosen the bolts (D)
4 Pull the bottom of the ImageTile panel forward
5 Fix the bolts (A, C, D) again

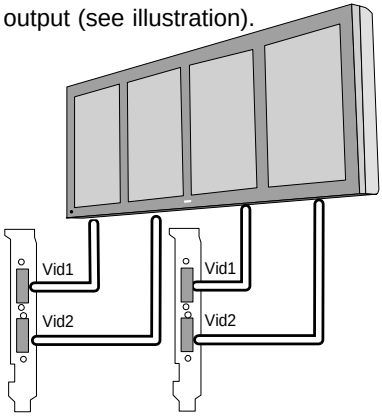


CONNECTING THE SIGNALS

To connect the signals:

1 Be sure the imaging board(s) are installed according to the instructions from the "Imaging board installation" chapter in this manual.
For a dual-head panel, 1 board must be installed. For a quad-head panel, 2 boards must be installed.

2 Connect the outputs of the imaging board(s) to the DVI connectors (4) on the panel.
For each board, the leftmost head must be connected to the Vid1 output (see illustration).



3 If you wish to use the built-in Sentinel reporting functions, connect the panel to a local network. Plug the network cable into the panel's network plug (6).

To connect the power:

- Connect the power input (7) to a **grounded** AC power outlet.
- The display automatically adapts to the voltage. The voltage range is: 100-240 VAC - 10% / + 6%.

Note:

From the moment you connect the power to the panel, the panel is under tension. If you press the soft switch (3), the panel is switched in stand-by. Press once more to switch the panel on again.

STARTING UP

Proceed as follows:

1 Switch on the computer.

2 If the panel is in stand-by, press the soft switch (3) once.
The power LED (1) is green in the on-state and red in stand-by.

3 Now install the BarcoMed imaging board driver (see next section).

Note: The image resolution you have to select in the imaging board driver is **1536 x 2048**.

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BARCOMED SOFTWARE DRIVER INSTALLATION

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SOFTWARE INSTALLATION

Overview

The BarcoMed 3MP2FH Software Installation section has been divided into three sections, one for each of the three supported versions of the Windows operating system. They are: Windows NT 4.0, Windows 2000 and Windows XP.

In addition to the device drivers for your BarcoMed imaging boards, your BarcoMed Software CD also includes several additional tools. They are: The Barco Metheus Configuration Tab, the Barco Metheus Hardware Configuration Tab and the Barco Metheus DPMS Screen Saver. The Barco Metheus Configuration Tab and the Barco Metheus Hardware Configuration Tab are automatically installed with BarcoMed imaging board drivers. The Barco Metheus Configuration Tab helps you manage the special features of your BarcoMed imaging boards. The Barco Metheus Hardware Configuration Tab gathers information about the BarcoMed imaging boards and your system that is useful when diagnosing problems. The Barco Metheus Hardware Configuration Tab can also be used to update the firmware on the AURA video chipset based BarcoMed imaging boards. The Barco Metheus DPMS (Display Power Management Signaling) Screen Saver is an optional tool which must be installed separately. The Barco Metheus DPMS Screen Saver allows the user to set power and monitor saving features for medical monitors driven by BarcoMed Imaging Boards. At the end of the work day, the monitor will enter certain DPMS states as requested by the imaging board. This is accomplished through standardized signals between the monitor and imaging board. Instructions for installing the Barco Metheus DPMS Screen Saver are included in the chapter on the Barco Metheus DPMS Screen Saver.

Installing the BarcoMed Imaging Board Windows NT 4.0 Display Driver

Installing the Driver Using the BarcoMed Driver Installation Wizard

SPECIAL NOTE: Prior to installing the BarcoMed Display Drivers you MUST install the BarcoMed Imaging Board(s), connect the ImageTile display panel(s) to the card(s) and turn the ImageTile display on. Refer to the Hardware Installation section of this manual for instructions on installing the BarcoMed Imaging Board(s) and connecting them to the ImageTile display panel(s).

To install, reinstall or update the BarcoMed 3MP2FH Imaging Board Windows NT 4.0 Display Driver, log in using an account with administrator privileges and follow these steps:

1. Insert your ImageTile Software CD into your computer's CD drive. The "BarcoMed Driver Installation Wizard" should start automatically. If it doesn't start within 5 minutes, browse the contents of your ImageTile Software CD and double click on the file: **"NTDriverInstaller.exe"** to start the Wizard.
2. Click **"Next"** on the Wizard's Welcome Screen to continue or **"Cancel"** to exit the Wizard (see figure 4).

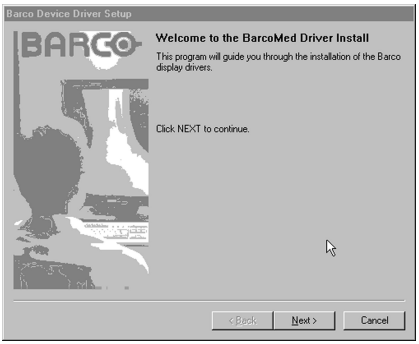
Barco Device Driver Setup
BARCO
Welcome to the BarcoMed Driver Install
This program will guide you through the installation of the Barco display drivers.
Click NEXT to continue.
< Back
Next >
Cancel

Figure 4

If you select **"Cancel"**, a dialog box (see figure 5) will open asking you to confirm cancellation of the install process. If you choose **"Yes"**, the Wizard will exit. If you choose **"No"**, the Wizard will continue normally.

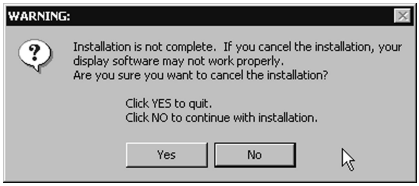
WARNING:
Installation is not complete. If you cancel the installation, your display software may not work properly.
Are you sure you want to cancel the installation?
Click YES to quit.
Click NO to continue with installation.
Yes
No

Figure 5

3. The Device Selection Screen (see figure 6) shows those devices supported by the driver. The application does not detect the physical hardware. You may choose only one type of device to install since Windows NT supports only one type of a device at a time. After you've selected the device you want to install, click **"Next"**.

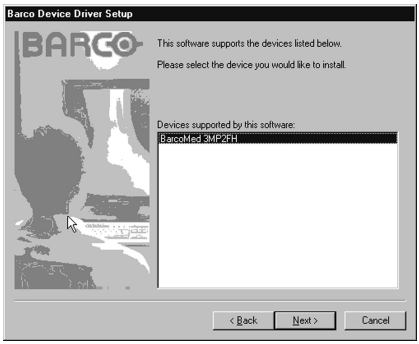
Barco Device Driver Setup
BARCO
This software supports the devices listed below.
Please select the device you would like to install.
Devices supported by this software:
BarcoMed 3MP2FH
< Back
Next >
Cancel

Figure 6

If you selected a device with an existing driver, the existing driver's version will be compared against the version of the driver you are installing. If the existing driver's version is newer than the one you are installing, the Wizard will warn you that the current driver is newer than the one you are installing (see figure 7). If you choose to continue, your existing driver will be replaced. Click **"OK"** to continue.

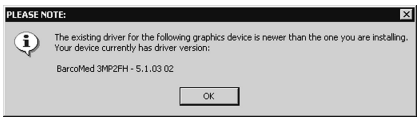
PLEASE NOTE:
The existing driver for the following graphics device is newer than the one you are installing.
Your device currently has driver version:
BarcoMed 3MP2FH - 5.1.03 02
OK

Figure 7

If you want to change your selection, click **"OK"** to continue and then click **"Back"** on the next screen.

4. The next screen (figure 8) displays the device that will be installed. If you want to change your selection, click **"Back"** and you will see the previous screen. To begin installation, click **"Next"**. If you want to end the installation without installing the driver, click **"Cancel"** and the Wizard will exit. Once you click **"Next",** you cannot cancel the driver installation.

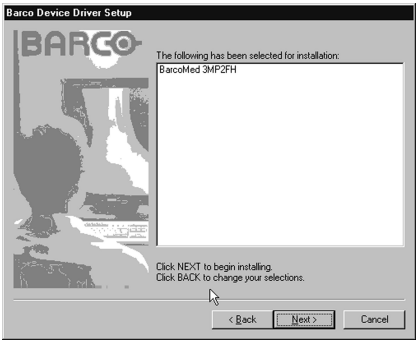

Figure 8

During the BarcoMed driver installation, the install progress window is displayed (figure 9).

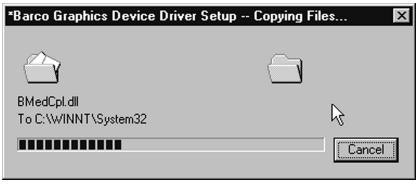

Figure 9

5. After the drivers have been installed the install program will prompt you to reboot your system; click **"REBOOT"** to restart your machine (see figure 10).

Barco Device Driver Setup
BARCO
Installation results:
Your BarcoMed 3MP2FH device has been installed successfully.
You have completed the driver installation. In order to make your changes take effect, you must REBOOT your machine. Please remove your BarcoMed Software CD from its drive prior to rebooting your system.
Click REBOOT to reboot now.
REBOOT
Cancel

Figure 10

6. Remove your ImageTile Software CD from its drive and click **"Yes"** to confirm reboot (see figure 11).

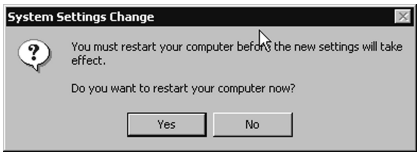
System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

Figure 11

7. When your computer restarts, select **"NT Version 4.0 (VGA Mode)"**. Log in using an account with administrator privileges.

Setting the Resolution of Your ImageTile Display Panel

After you have logged in using an account with administrator privileges per step 7 above, Windows NT will launch the **"Invalid Display Settings"** dialog box with the following message:

> " A new graphics driver has been installed. The default display resolution from the driver has been temporarily used by the system. Please use the Display option in the Windows NT Control Panel to select your preferred display resolution."

1. Click **"OK"**.
2. The **"Display Properties"** dialog box will appear. Click on the **"Settings"** tab, select **"List all Modes**" (see figure 12 on the next page).
3. Select a resolution from the list that is correct for the maximum number of display adapters installed (even if you will later configure for less than the maximum number of displays supported by your configuration). For example:

If you are installing one 3MP2FH in portrait mode, select “3072x2048x256”. This will set the output resolution for each display to “1536x2048x256”.

For a two-card, quad-head configuration, select “6144x2048x256”.

Select **“OK”**.

4. Select the **“Test”** button and click on **“OK”** to test the display. You will be asked if it displayed correctly. If the test pattern displays correctly, select **“Yes”**. If not, select “List all Modes” and try selecting another mode.
5. In order to apply your changes, you need to click on the **“OK”** button in the “Display Properties” dialogue box but this button will not be visible because you are running in VGA mode. Select **“OK”** by pressing **“CTRL” + “Enter”.**
6. You may be asked if you want to restart your computer. Select **“Yes”**. Even if Windows does not ask you if you want to restart your computer, you must restart it and boot normally for your changes to take effect.
7. When your system restarts, select the **“NT Version 4.00”** option (NOT the VGA Mode option). Log in as usual.

If you wish to change the number of ImageTile display panels you are using, see the **“BARCO Metheus Configuration Tab”** chapter of this guide.

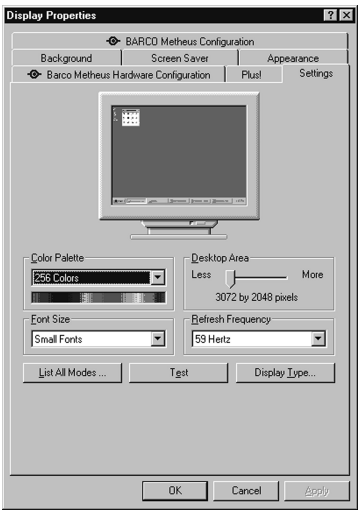

Figure 12: The Windows NT 4.0 Display Properties Control Panel after the drivers have been installed and the resolution set.

Note: The system shown in figure 12 is a single BarcoMed 3MP2FH Imaging Board, no 3rd party VGA card configuration, your system may look different.

Installing the Driver Using the Windows NT 4.0 Display Properties Control Panel

SPECIAL NOTE: Prior to installing the BarcoMed Display Drivers you MUST install the BarcoMed Imaging Board(s), connect the ImageTile display panel(s) to the card(s) and turn the ImageTile display panel(s) on. Refer to the Hardware Installation section of this manual for instructions on installing the BarcoMed Imaging Board(s) and connecting them to the ImageTile display panel(s).

To install the BarcoMed 3MP2FH Imaging Board Windows NT 4.0 Display Driver, log in using an account with administrator privileges and follow these steps:

1. Double Click on the **"My Computer"** Icon.
2. Open the **"Control Panel"** Folder.
3. Double Click on the "**Display"** Icon.
4. Click on the **"Settings"** Tab.
5. Select **"Display Type"**.
6. Select **"Change"**.
7. Select **"Have Disk"**.
8. Insert your ImageTile Software CD into the appropriate drive or browse to the location of your driver and Click **"OK"**.
9. Select the appropriate BarcoMed Imaging Board (See table below.).

Board Name	Driver Name
3MP2FH	3MP2FH

   Click **"OK"**.
10. You will see a message saying that this is a Third Party Driver and asking if you wish to proceed. Click "Yes**"**.
11. The driver files will be copied onto your system.
12. You will receive a message saying the driver is successfully installed. Click **"OK"**.
13. **Close** the "Display Type" dialog box.
14. **Close** the "Display Properties" dialog box.

15. You will be asked if you want to restart your computer. If you are using an ImageTile Software CD, remove it from its drive and select **“Yes”**.
16. When the system comes back up, select **“NT Version 4.0 (VGA Mode)”**. Log in using an account with administrator privileges.

Setting the Resolution of Your ImageTile Display Panel

After you have logged in using an account with administrator privileges per step 16 above, Windows NT will launch the **“Invalid Display Settings”** dialog box with the following message:

> “ A new graphics driver has been installed. The default display resolution from the driver has been temporarily used by the system. Please use the Display option in the Windows NT Control Panel to select your preferred display resolution.”

Click **“OK”** and turn to the section “Setting the Resolution of Your ImageTile Display Panel” found earlier in this chapter to set the resolution of your ImageTile Display Panel.

Installing the BarcoMed 3MP2FH Windows 2000 Display Driver

Installing the Driver Using the BarcoMed Driver Installation Wizard

SPECIAL NOTE: Prior to installing the BarcoMed drivers you MUST install the BarcoMed Imaging Board(s), connect the ImageTile display panel(s) to the card(s), and turn the ImageTile display on. Refer to the Hardware Installation section of this manual for instructions on installing the BarcoMed Imaging Board(s) and connecting them to the ImageTile display panel(s).

The following driver installation instructions presume that Windows 2000 is already installed on your system. If you need to install or reinstall Windows 2000 on your system you must first remove the BarcoMed Imaging Boards and use a 3rd party VGA card and VGA monitor during the Windows 2000 installation process.

To install, reinstall or update your BarcoMed 3MP2FH Windows Display Driver for the first time follow the steps below. If you are reinstalling the drivers or installing a new driver release over an existing driver release skip to the step 5 on the next page:

1. Install the BarcoMed 3MP2FH Imaging Board(s) into your machine. Please refer to the hardware installation section of this manual for more information.
2. Boot the machine, and log in using an account with administrator privileges.
3. For each 3MP2FH board you have installed, Windows 2000 will automatically launch the “Found New Hardware Wizard” (see figure 13).
   Click **“Cancel”** to exit the “Found New Hardware Wizard”.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

Figure 13

Continue to click **"Cancel"** until Windows 2000 stops launching the "Found New Hardware Wizard - Video Controller".

4. Windows 2000 may advise you that it has finished installing all the new devices in your system and that you must reboot your system in order for the changes to take effect. If it does, Click **"No"**.
5. Insert your ImageTile Software CD into your computer's CD drive. The "BarcoMed Driver Installation Wizard" should start automatically. If it doesn't start within 5 minutes, browse the contents of your ImageTile Software CD and double click on the file: **"NTDriverInstaller.exe"** to start the wizard.
6. Click **"Next"** on the Wizard's Welcome Screen to continue or **"Cancel"** to exit the wizard (see figure 14).

Barco Device Driver Setup
BARCO
Welcome to the BarcoMed Driver Install
This program will guide you through the installation of the Barco display drivers.
Click NEXT to continue.
< Back
Next >
Cancel

Figure 14

If you select **"Cancel"**, a dialog box (figure 15) will open asking you to confirm cancellation of the install process. If you choose **"Yes"**, the Wizard will exit. If you choose **"No"**, the Wizard will continue normally.

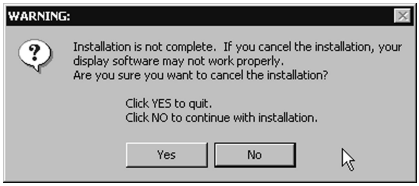
WARNING:
Installation is not complete. If you cancel the installation, your display software may not work properly.
Are you sure you want to cancel the installation?
Click YES to quit.
Click NO to continue with installation.
Yes
No

Figure 15

7. The Device Selection Screen's dialog box should show only those devices physically installed and supported by the Barco graphics device driver on your ImageTile Software CD (see figure 16 below). If there are no Barco devices installed or if the driver on your ImageTile Software CD does not support the installed devices, the dialog box will be empty, and program will exit when

the user clicks **"Finish"** or **"Cancel"**. Select the devices you want to install, click **"Next"**.

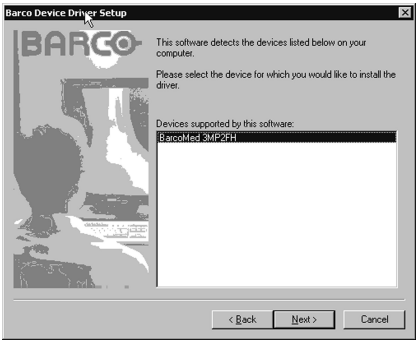
Barco Device Driver Setup
BARCO
This software detects the devices listed below on your computer.
Please select the device for which you would like to install the driver.
Devices supported by this software:
BarcoMed 3MP2FH
< Back
Next >
Cancel

Figure 16

If you selected a device with an existing driver, the existing driver's version will be compared against the version of the driver you are installing. If the existing driver's version is newer than the one you are installing, the Wizard will warn you that the current driver is newer than the one you are installing (see figure 17). If you choose to continue, your existing driver will be replaced. Click **"OK"** to continue.

PLEASE NOTE:
The existing driver for the following graphics device is newer than the one you are installing. Your device currently has driver version:
BarcoMed 3MP2FH - 5.1.03 02
OK

Figure 17

If you want to change your selection, click **"OK"** to continue and then click **"Back"** on the next screen.

8. Your selection on the screen shown in figure 20 will determine if DualView is enabled or not. DualView allows a dual head imaging board to display two separate desktops, one for each display instead of a single virtual desktop that spans across both displays. DualView is a feature that is automatically supported by Windows XP. However, BARCO has provided a means for you to enable this functionality while running Windows 2000. Figures 18 and 19 on the next page shows the difference between running without and with DualView enabled under Windows 2000.

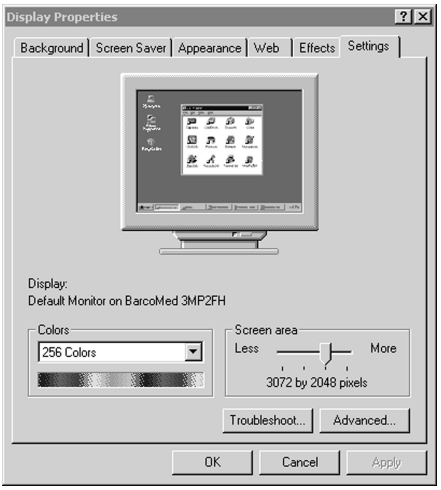

Figure 18: DualView Disabled

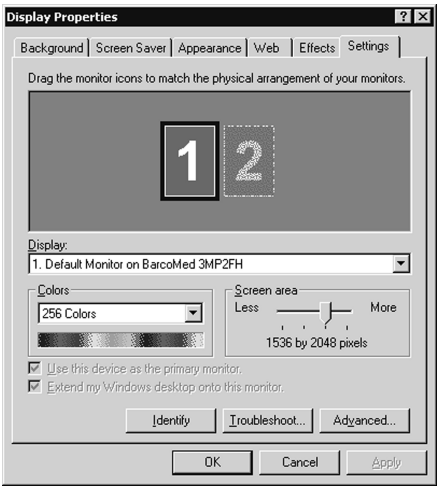

Figure 19: DualView Enabled

If DualView is not enabled, you will see a single virtual screen in the display properties dialog for both heads of a Imaging Board. If DualView is enabled, you will see two virtual screens in the dialog box on the Settings Tab of the Display Properties Control Panel, one for each head of the Imaging Board. If you wish to enable DualView **"check"** the

checkbox next to “Enable the DualView device?”, and click **“Next”**. If you do not wish to enable DualView simply click **“Next”** to continue.

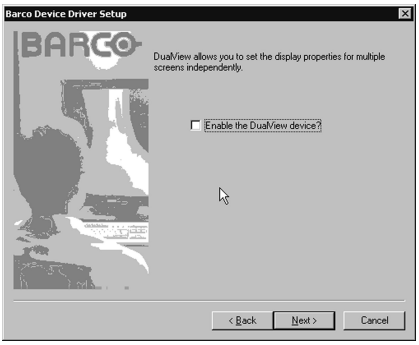
Barco Device Driver Setup
BARCO
DualView allows you to set the display properties for multiple screens independently.
Enable the DualView device?
< Back
Next >
Cancel

Figure 20

9. The screen shown in figure 21 displays the device(s) that will be installed. If you want to change your selection, click **Back** and you will see the previous screen. To begin installation, click **“Next”** to continue. If you want to end the installation without installing the driver, click **“Cancel”** and the wizard will exit. Once you click **“Next”,** you cannot cancel the driver installation.

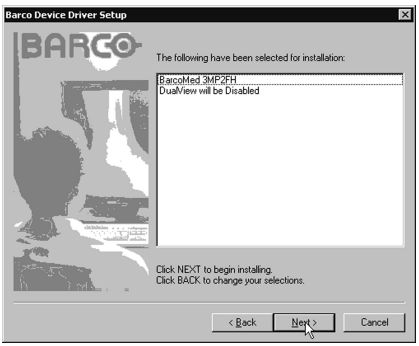

Figure 21

10. Prior to beginning the installation, the BarcoMed Driver Install Wizard will warn you that while the driver is being installed your display may flicker. Click **“OK”** to continue (see figure 22).

PLEASE NOTE:
Please be patient while the driver is installed.
This may take a few minutes, during which your monitor may flicker.
This is normal.
OK

Figure 22

11. While the driver is being installed, the screen shown in figure 23 will be visible.

Figure 23

12. For each display supported by your ImageTile imaging board(s) the Wizard will display the screen shown in figure 24. Click **"Yes"** to continue.

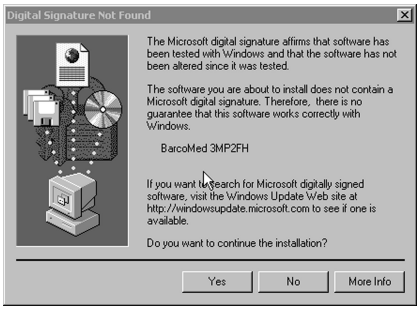
Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
BarcoMed 3MP2FH
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

Figure 24

13. If the Wizard has successfully installed the drivers for all of the displays supported by your BarcoMed 3MP2FH imaging board(s), the Wizard will prompt you to reboot your system (see figure 25). Click **"REBOOT"** to restart your computer now. Click **"Cancel"** to

restart your computer at a later time. If the installation failed, click **"Finish"** to exit the Wizard (see figure 27).

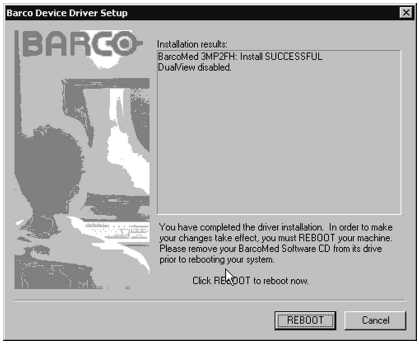
Barco Device Driver Setup
BARCO
Installation results:
BarcoMed 3MP2FH: Install SUCCESSFUL
DualView disabled.
You have completed the driver installation. In order to make your changes take effect, you must REBOOT your machine. Please remove your BarcoMed Software CD from its drive prior to rebooting your system.
Click REBOOT to reboot now.
REBOOT
Cancel

Figure 25

Windows will warn you that you must restart your computer before the new settings will take effect (see figure 26). Click **Yes** to restart your computer. When your computer restarts, log in using an account with administrator privileges.

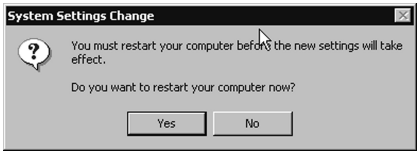
System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

Figure 26

If the Wizard failed to successfully install the drivers for all of the displays supported by your BarcoMed 3MP2FH imaging board(s), the Wizard will advise you that the installation failed (see figure 27 on the next page). Click **"Finish"** to exit the Wizard and try reinstalling the drivers following the steps above or using the steps outlined in "Reinstalling or Updating your BarcoMed Drivers" section found later in this chapter.

Special Note: If you installed the drivers with DualView disabled, Windows 2000 will still show two devices installed for each BarcoMed 3MP2FH Imaging Boards installed under "Display Adapters" in the "Device Manager Control Panel". The second device will be disabled. This is normal. Do **NOT** try to enable any of the disabled display adapters. If you wish to enable DualView, you will need to reinstall the drivers with DualView enabled.

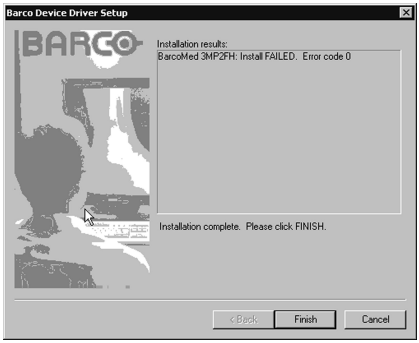

Figure 27

Setting the Resolution of Your ImageTile Display Panel with DualView Disabled

1. To set the resolution for your ImageTile display panel(s), right click on the desktop and select **"Properties"**. Select the **"Settings"** tab (see Figure 28 on the next page). Now select the **rectangle** that represents the BarcoMed 3MP2FH Imaging Board you are working with.
   SPECIAL NOTE: If you are using the VGA capabilities of your BarcoMed 3MP2FH Imaging Board, the resolution for that board will still be set to a VGA resolution of "640 x 480" pixels. If the BarcoMed 3MP2FH Imaging Board is not running VGA, the device may not be enabled yet. To enable the device **check** the "**Extend my Windows desktop onto this monitor**" checkbox. Do not click the **"Apply"** button at this time.
2. Click on the **"Advanced"** Button.
3. Select the **"Adapter"** tab and then click on the **"List All Modes…"** button. Select the desired resolution and refresh rate that your ImageTile display panel supports from the dialog box and click **"OK"**.

   Note: The resolutions shown will be based on the number of heads the imaging board supports.

   For example: The BarcoMed 3MP2FH Imaging Board supports two ImageTile display panels. If the resolution of each display is 1536x2048x256, Windows 2000 will display the resolution as 3072x2048x256. If necessary you can change the number of display panels later by using the Barco Metheus Configuration Tab.

Click **"OK"** on the bottom of the Adapter Control Panel. If the **"OK"** button on the bottom of the Adapter Control Panel is not visible, press the **"Tab"** key once and then **"Enter"** to select **"OK"**.

4. Click **"OK"** in the "Windows will now apply your new desktop settings" dialog box. Your high resolution display(s) should now synchronize and display the Windows desktop.
5. Click **"Yes"** when asked, "Your desktop has been reconfigured. Do you want to keep these settings?"
   Repeat steps 1 – 5 for each monitor/display panel on all the BarcoMed Imaging Boards installed in your system.

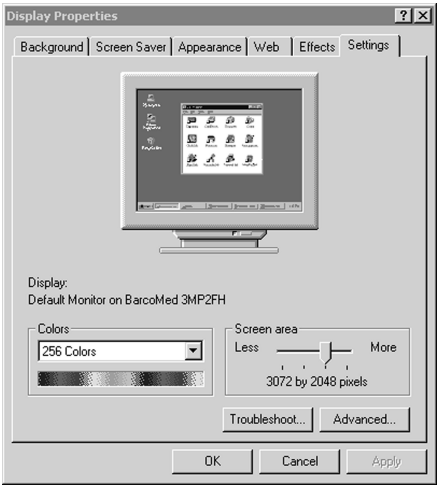

Figure 28: The Windows 2000 Display Properties Control Panel Settings Tab after the drivers have been installed and the resolution set.

Note: The system shown in figure 28 above is a single BarcoMed 3MP2FH Imaging Board, no 3rd party VGA card configuration, your system may look different.

Setting the Resolution of Your ImageTile Display Panel with DualView enabled

Once you have completed the installation of the separate screens with DualView, you need to set the resolution for each display. Both screens of each imaging board cannot be enabled at the same time unless their display properties match.

1. To set the resolution for your ImageTile display panel(s) under DualView, right click on the desktop and select **"Properties"**.
2. Select the **"Settings"** tab (see figure 33 earlier in this chapter). Now select the **rectangle** that represents the first ImageTile display attached to the BarcoMed 3MP2FH Imaging Board you are working with.

   SPECIAL NOTE: If you are using the VGA capabilities of your BarcoMed 3MP2FH Imaging Board, the resolution for the first display will still be set to a VGA resolution of "640 x 480" pixels. If the BarcoMed 3MP2FH Imaging Board is not running VGA, the display may not be enabled yet. To enable the device **check** the **"Extend my Windows desktop onto this monitor"** checkbox. Do not click the **"Apply"** button at this time.

   If necessary detach the second display of the BarcoMed 3MP2FH Imaging Board you are working with by right clicking on the rectangle that represents it and deselect **"Attached"**. Click the **"Apply"** button.
   Note: Since Windows 2000 will not let you detach the primary display, you may need to temporarily make another display the primary display.
3. For the display which is still attached click on the **"Advanced"** Button.
4. Select the **"Adapter"** tab and then click on the **"List All Modes…"** button. Select the resolution and refresh rate that your ImageTile display panel supports from the dialog box and click **"OK"**.

   Note: In the Adapter box, the Adapter string shows if this display is the First View or the Second View attached to the Imaging Board. Please make a note of this, so that you can arrange the displays in the correct order later.
5. Click **"OK"** on the bottom of the Adapter Control Panel. If the **"OK"** button on the bottom of the Adapter Control Panel is not visible, press **"CTRL"+"Enter"** to select **"OK"**.
6. Click **"OK"** in the "Windows will now apply your new desktop settings" dialog box. Your high resolution display(s) should now synchronize and display the Windows desktop.
7. Click **"Yes"** when asked, "Your desktop has been reconfigured. Do you want to keep these settings?"

To set the resolution of the second ImageTile display attached to the BarcoMed 3MP2FH Imaging Board you are working with, go back to the **“Settings”** tab of the “Display Properties Control Panel”. Attach the display you detached in step 2 above, by right clicking on the rectangle that represents it and selecting **“Attached”**.

Now repeat steps 3 – 7 above for this display.

If you are using a Quad-Head Configuration repeat all of the above steps for the two displays on the second imaging board.

Special note: After installing DualView and setting the resolutions in a Quad-Head Congifuration you may need to drag the heads into the proper position in the window on the **“Settings**” tab, so that the arrangement in the window on the **“Settings”** tab matches the physical arrangement of your configuration.

After installing DualView use the Barco Metheus Configuration Control Panel to verify or change your system settings.

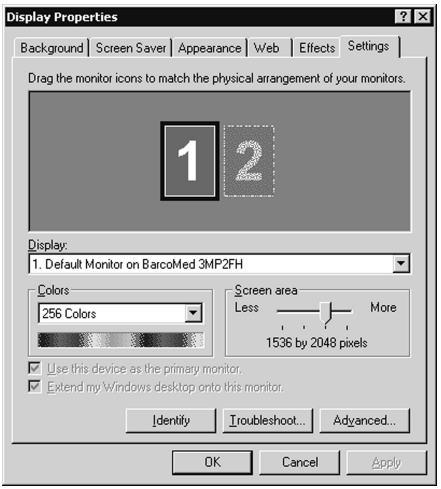

Figure 29: The Windows 2000 Display Properties Control Panel Settings Tab after the drivers have been installed and the resolution set with DualView Enabled.

Note: The system shown in figure 29 above is a dual-head, single BarcoMed 3MP2FH Imaging Board, no 3rd party VGA card configuration, your system may look different.

Disabling DualView under Windows 2000

DualView can be disabled on a BarcoMed Imaging Board through the Monitor Configuration section of the Barco Metheus Configuration Tab by following the steps listed below.

1) Open the “Display Properties Control Panel” by right clicking on the desktop, then select **“Properties”**.
2) Click on **“Settings”** tab. Double click on the rectangle that represents the first display attached to the BarcoMed Imaging Board you are working with to bring up its property page. Click on the “BARCO Metheus Configuration” tab.
3. Select **“Disable DualView”** from the “Monitor Configuration” drop down menu (see figure 30 below). Click **“OK”**, twice. **Note:** If you are using a 3rd party VGA card you may need to press the **“Tab”** key once and then **“Enter”** to select the 2nd **“OK”**. Your system will automatically shutdown and restart.

Figure 30: Barco Metheus Configuration Tab – Disabling DualView

4. When your machine comes back up, you may need to re-set up your ImageTile displays with the desired display settings.

If you wish to Disable DualView on more than one BarcoMed 3MP2FH Imaging Board repeat steps 1 – 4 above for each board.

Re-enabling DualView under Windows 2000

If you have disabled DualView using the method described on the previous page (or if you installed the driver with DualView disabled) and decide you want to re-enable it, follow the steps listed below.

1) Open the “Display Properties Control Panel” by right clicking on the desktop, then select **“Properties”**.
2) Click on **“Settings”** tab. Double click on the rectangle that represents the displays attached to the BarcoMed Imaging Board you are working with to bring up its property page. Click on the “BARCO Metheus Configuration” tab.
3. Select **“Enable DualView”** from the “Monitor Configuration” drop down menu (see figure 31 below). Click **“OK”**, twice.
   Note: If you are using a 3rd party VGA card you may need to press the **“Tab”** key once and then **“Enter”** to select the 2nd **“OK”**. Your system will automatically shutdown and restart. Your system will automatically shutdown and restart.

Figure 31: Barco Metheus Configuration Tab – Enabling DualView

4. When your machine comes back up, you may need to re-set up your ImageTile displays with the desired display settings.

If you wish to re-enable DualView on more than one BarcoMed 3MP2FH Imaging Board repeat steps 1 – 4 above for each board.

Installing the Driver Using the Windows 2000 Found New Hardware Wizard

SPECIAL NOTE: Prior to installing the BarcoMed drivers you MUST install the BarcoMed Imaging Board(s), connect the ImageTile display panel(s) to the card(s), and turn the ImageTile display on. Refer to the Hardware Installation section of this manual for instructions on installing the BarcoMed Imaging Board(s) and connecting them to the ImageTile display panel(s).

The following driver installation instructions presume that Windows 2000 is already installed on your system. If you need to install or reinstall Windows 2000 on your system you must first remove the BarcoMed Imaging Boards and use a 3rd party VGA card and VGA monitor during the Windows 2000 installation process.

Initial BarcoMed Display Driver Installation

To install the BarcoMed 3MP2FH Windows Display Driver for the first time follow the steps below, if you are reinstalling the drivers or installing a new driver release skip to the next section:

1. Install the BarcoMed 3MP2FH Imaging Board(s) into your machine. Please refer to the hardware installation section of this manual for more information.
2. Boot the machine, and log in using an account with administrator privileges.
3. For each 3MP2FH board you have installed, Windows 2000 will automatically launch the “Found New Hardware Wizard”.
   Click **“Next”** to continue using the “Found New Hardware Wizard”.
4. The Wizard will now install the BarcoMed device drivers. If you are using the VGA capabilities of the BarcoMed 3MP2FH the Wizard will list the BarcoMed 3MP2FH as a “Video Controller (VGA Compatible)”. Otherwise each BarcoMed 3MP2FH board will be listed simply as “Video Controller”.
   Select the radio button beside “Display a list of the known drivers for this device so that I can choose a specific driver”. Click **“Next”**.
5. In the “Hardware Type” page of the wizard, highlight **“Display Adapters”** and then click “**Next**”.
6. In the “Select a Device Driver” page of the wizard click **“Have Disk”**. Insert your ImageTile Software CD into your computer's CD drive or browse to the location of your driver and Click **“OK”**.
7. Select “BarcoMed 3MP2FH “ in the “Select a Device Driver” window. Click “**Next**”.

8. The “Start Device Driver Installation” dialog box will appear. Click “**Next**”.
9. Windows will warn you that a digital signature was not found. Click **“Yes”** to continue the installation.
10. When the drivers have finished installing, click **“Finish”** on the “Completing Found New Hardware Wizard” page.

    If you are installing a single BarcoMed 3MP2FH Imaging Board, Windows 2000 will now prompt you to reboot your system. Click **“Yes”**. Boot normally and log in using an account with administrator privileges. (If you are using a 3rd party VGA card Windows may not prompt you to reboot the system. However, you must reboot the system prior to attempting to extend your desktop to the BarcoMed 3MP2FH and setting its resolution.) To set the resolution of your display skip to the **“Setting the Resolution of ...”** section of this chapter.

    If you have multiple BarcoMed 3MP2FH Imaging Boards installed, the “Found New Hardware Wizard” will automatically run again for each additional BarcoMed 3MP2FH Board installed. Follow the steps below to install the drivers for each additional board.
11. Windows 2000 Plug and Play will automatically locate the drivers for the second BarcoMed 3MP2FH board. When Windows warns you that a digital signature was not found, click **“Yes”** to continue the installation.
12. When the drivers have finished installing, click **“Finish”** on the “Completing Found New Hardware Wizard” page.
13. Windows will now prompt you to reboot your system. Click **“Yes”**. Boot normally and log in using an account with administrator privileges.

Reinstalling or Updating your BarcoMed Drivers

To reinstall your current BarcoMed Display Driver or install a new version of the BarcoMed Display Driver follow the steps below:

1. Right click on the desktop and select **“Properties”**. Select the **“Settings”** tab. Now select the **rectangle** that represents the BarcoMed 3MP2FH Imaging Board whose driver you wish to reinstall or update.
2. Click on the **“Advanced”** Button.
3. Select the **“Adapter”** tab and then click on the **“Properties”** button.
4. Select the **“Driver”** tab and then click on the **“Update Device Driver”** button. The “Upgrade Device Driver” Wizard will start. Click **“Next”** to continue.

5. Select the radio button beside “Display a list of the known drivers for this device so that I can choose a specific driver”. Click **“Next”**.
6. In the “Hardware Type” page of the wizard, highlight **“Display Adapters”** and then click “**Next**”.
7. In the “Select a Device Driver” page of the wizard click **“Have Disk”**. Insert your ImageTile Software CD or browse to the location of your driver and Click **“OK”**.
8. Select “BarcoMed 3MP2FH “ in the “Select a Device Driver” window. Click “**Next**”.
9. The “Start Device Driver Installation” dialog box will appear. Click “**Next**”.
10. Windows will warn you that a digital signature was not found. Click **“Yes”** to continue the installation.
11. When the drivers are installed, click **“Finish”** on the update driver wizard and click **“Close”** on the properties page for the device. Reboot your system when asked, even if you are reinstalling or updating the drivers for multiple BarcoMed 3MP2FH boards in your system .
12. Boot normally and log in using an account with administrator privileges. Repeat steps **1-12** until you have reinstalled or updated the drivers for all of the BarcoMed Imaging Boards.

Setting the Resolution of Your ImageTile Display Panel

To set the resolution of your ImageTile Display Panel see the section “Setting the Resolution of Your ImageTile Display Panel with DualView Disabled” earlier in this chapter.

For more information about DualView and how to install it proceed to the next page.

Installing DualView under Windows 2000

DualView allows a dual head graphics board to display two separate desktops, one for each monitor instead of a single virtual desktop that spans across both monitors. Figures 32 and 33 below illustrates the difference between running without and with DualView enabled under Windows 2000. DualView is a feature that is supported by Windows XP. However, BARCO has provided a means for the user to enable this functionality while running Windows 2000.

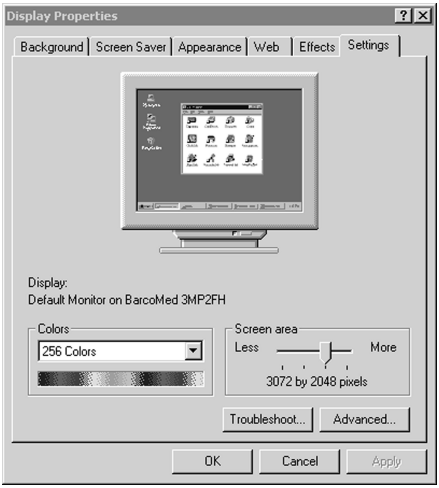

Figure 32: Windows 2000 Display Properties Control Panel with DualView disabled.

Note: The system shown in figure 32 above is a dual-head, single BarcoMed 3MP2FH Imaging Board, no 3rd party VGA card, DualView disabled configuration, your system may look different.

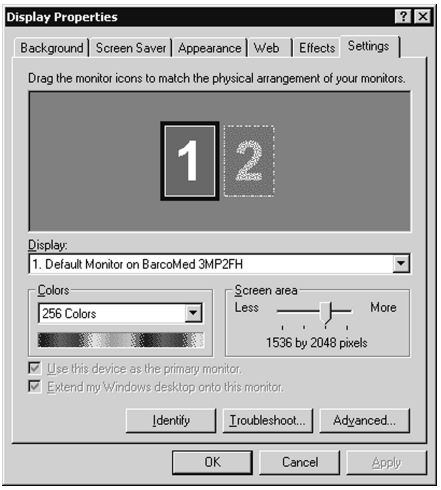

Figure 33: Windows 2000 Display Properties Control Panel with DualView enabled.

Note: The system shown in figure 33 above is a dual-head, single BarcoMed 3MP2FH Imaging Board, no 3rd party VGA card, DualView enabled configuration. Rectangles "1" and "2" represent the two ImageTile displays of a single board/dual head installation. Your configuration may look different.

This feature can be installed with ImageTile on a BarcoMed 3MP2FH by following the steps listed below.

1. Follow the instructions in the section **"Initial BarcoMed Display Driver Installation"** to install the BarcoMed 3MP2FH driver for each 3MP2FH graphics board installed in the system.
2. Double-click the **"Add/Remove Hardware"** icon in the Microsoft Control Panel. The "Add/Remove Hardware Wizard" appears.
3. Click **"Next"**.
4. In the "Choose a Hardware Task" page of the wizard select the radio button beside **"Add/Troubleshoot a device",** and click **"Next"**. Windows will now search for a new Plug and Play hardware device to install. When Windows fails to find a new Plug and Play hardware device, the "Choose a Hardware Device" page of the wizard will appear.
5. Select **"Add a new device",** and click **"Next"**.

6. In the “Find New Hardware” page of the wizard select the radio button beside “**No, I want to select the hardware from a list”** and click **“Next”**.
7. In the “Hardware Type” page of the wizard, highlight **“Display Adapters”** and then click “**Next**”.
8. In the “Select a Device Driver” page of the wizard select **“BARCO Metheus”** in the Manufacturers column and **“BarcoMed 3MP2FH”** in the Models column. Click **“Next”**.
9. The **“**Start Hardware Installation” dialog box appears. Click **“Next”.**
10. Windows will warn you that a digital signature was not found. Click **“Yes”** to continue the installation. .
11. When the drivers have finished copying, click **“Finish”** on the “Completing Found New Hardware Wizard” page to complete the installation.
12. Windows may now prompt you to reboot your system. Click **“Yes”**. Boot normally and log in using an account with administrator privileges.

Repeat steps 1 – 12 above for each 3MP2FH board for which you want to have the DualView feature enabled.

Setting the Resolution of Your ImageTile Display Panel with DualView enabled

Once you have completed the installation of the separate screens with DualView, you need to set the resolution for each display. Both screens of each imaging board cannot be enabled at the same time unless their display properties match.

1. To set the resolution for your ImageTile display panel(s) under DualView, right click on the desktop and select **“Properties”**.
2. Select the **“Settings”** tab (see figure 33 earlier in this chapter). Now select the **rectangle** that represents the first ImageTile display panel attached to the BarcoMed 3MP2FH Imaging Board you are working with.

   SPECIAL NOTE: If you are using the VGA capabilities of your BarcoMed 3MP2FH Imaging Board, the resolution for the first display will still be set to a VGA resolution of “640 x 480” pixels. If the BarcoMed 3MP2FH Imaging Board is not running VGA, the display may not be enabled yet. To enable the device **check** the **“Extend my Windows desktop onto this monitor”** checkbox. Do not click the **“Apply”** button at this time.

If necessary detach the second display of the BarcoMed 3MP2FH Imaging Board you are working with by right clicking on the rectangle that represents it and deselect **"Attached"**. Click the **"Apply"** button.

Note: Since Windows 2000 will not let you detach the primary display, you may need to temporarily make another display the primary display.

3. For the display which is still attached click on the **"Advanced"** Button.
4. Select the **"Adapter"** tab and then click on the **"List All Modes…"** button. Select the resolution and refresh rate that your ImageTile display panel supports from the dialog box and click **"OK"**.

   Note: In the Adapter box, the Adapter string shows if this display is the First View or the Second View attached to the Imaging Board. Please make a note of this, so that you can arrange the displays in the correct order later.
5. Click **"OK"** on the bottom of the Adapter Control Panel. If the **"OK"** button on the bottom of the Adapter Control Panel is not visible, press **"CTRL"+"Enter"** to select **"OK"**.
6. Click **"OK"** in the "Windows will now apply your new desktop settings" dialog box. Your high resolution display(s) should now synchronize and display the Windows desktop.
7. Click **"Yes"** when asked, "Your desktop has been reconfigured. Do you want to keep these settings?"

To set the resolution of the second ImageTile display panel attached to the BarcoMed 3MP2FH Imaging Board you are working with, go back to the **"Settings"** tab of the "Display Properties Control Panel". Attach the display you detached in step 2 above, by right clicking on the rectangle that represents it and selecting **"Attached"**.

Now repeat steps 3 – 7 above for this display.

If you are using a Quad-Head Configuration repeat all of the above steps for the two displays on the second imaging board.

Special note: After installing DualView and setting the resolutions in a Quad-Head Congifuration you may need to drag the heads into the proper position in the window on the **"Settings**" tab, so that the arrangement in the window on the **"Settings"** tab matches the physical arrangement of your configuration.

After installing DualView use the Barco Metheus Configuration Control Panel to verify or change your system settings.

Installing the BarcoMed 3MP2FH Windows XP Display Driver

Installing the Driver Using the BarcoMed Driver Installation Wizard

SPECIAL NOTE: Prior to installing the BarcoMed drivers you MUST install the BarcoMed Imaging Board(s), connect the ImageTile display panel(s) to the card(s), and turn the ImageTile display on. Refer to the Hardware Installation section of this manual for instructions on installing the BarcoMed Imaging Board(s) and connecting them to the ImageTile display panel(s).

To install, reinstall or update your BarcoMed 3MP2FH Windows Display Driver for the first time follow the steps below. If you are reinstalling the drivers or installing a new driver release over an existing driver release skip to the step 7 on the next page:

1. Install the BarcoMed 3MP2FH Imaging Board(s) into your machine. Please refer to the hardware installation section for more information.
2. Boot the machine and log in using an account with administrative privileges.
3. Windows XP will do a thorough inspection of your system and will announce that it has found new hardware. Please be patient as this may take up to 5 minutes.
4. Close any informational balloons that Windows XP may open in the lower right hand corner of the monitor.
5. Windows XP will automatically launch the “Found New Hardware Wizard”. Click **“Cancel”** to exit the Wizard.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Video Controller (VGA Compatible)
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

Figure 34: Found New Hardware Wizard

6. Windows XP may also tell you that it has finished installing new devices and may ask you if you want to restart your computer. Click **"No"**.
7. Insert your ImageTile Software CD into your computer's CD drive. The "BarcoMed Driver Installation Wizard" should start automatically. If it doesn't start within 5 minutes, browse the contents of your ImageTile Software CD and double click on the file: **"NTDriverInstaller.exe"** to start the Wizard.
8. Click **"Next"** on the Wizard Welcome Screen to continue or **"Cancel"** to exit the Wizard (see figure 35).

Barco Device Driver Setup
BARCO
Welcome to the BarcoMed Driver Install
This program will guide you through the installation of the Barco display drivers.
Click NEXT to continue.
< Back
Next >
Cancel

Figure 35

If you select **"Cancel"**, a dialog box (figure 36) will open asking you to confirm cancellation of the install process. If you choose **"Yes"**, the Wizard will exit. If you choose **"No"**, the Wizard will continue normally.

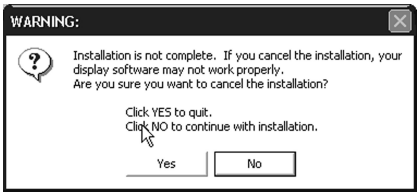
WARNING:
Installation is not complete. If you cancel the installation, your display software may not work properly.
Are you sure you want to cancel the installation?
Click YES to quit.
Click NO to continue with installation.
Yes
No

Figure 36

9. The Device Selection Screen's dialog box should show only those devices physically installed and supported by the Barco graphics device driver on your ImageTile Software CD (see figure 37). If there are no Barco devices installed or if the driver on your

ImageTile Software CD does not support the installed devices, the dialog box will be empty, and program will exit when the user clicks **"Finish"** or **"Cancel"**. Select the devices you want to install, click **"Next"**.

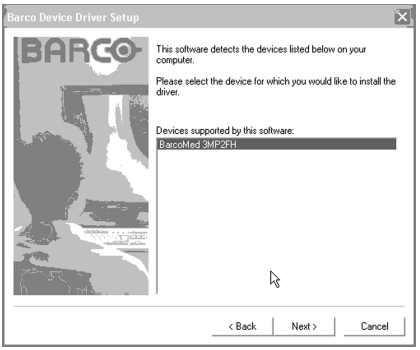
Barco Device Driver Setup
BARCO
This software detects the devices listed below on your computer.
Please select the device for which you would like to install the driver.
Devices supported by this software:
BarcoMed 3MP2FH
< Back
Next >
Cancel

Figure 37: Supported Devices Screen

10. If you selected a device with an existing driver, the existing driver's version will be compared against the version of the driver you are installing. If the existing driver's version is newer than the one you are installing, the above message will appear as a warning (see figure 38). If you choose to continue, your existing driver will be replaced. Click **"OK"** to continue.

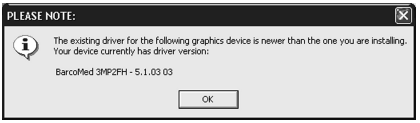
PLEASE NOTE:
The existing driver for the following graphics device is newer than the one you are installing.
Your device currently has driver version:
BarcoMed 3MP2FH - 5.1.03 03
OK

Figure 38

If you want to change your selection, click **"OK"** to continue and then click **"Back"** on the next screen.

11. Your selection on the screen shown in figure 41 will determine if DualView is enabled or not. DualView allows a dual head imaging board to display two separate desktops, one for each display instead of a single virtual desktop that spans across both displays. DualView is a feature that is automatically supported by Windows XP. However, BARCO has provided a means for you to disable this functionality while running Windows XP. Figures 39 and 40 on the next page shows the difference between running without and with DualView enabled under Windows XP.

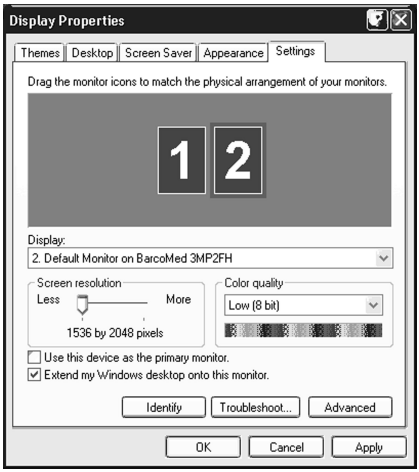

Figure 39: DualView Enabled

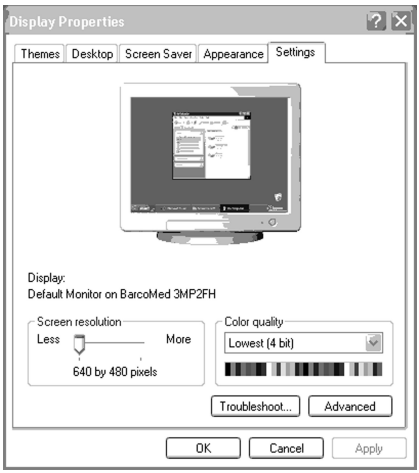

Figure 40: DualView Disabled

If DualView is enabled, you will see two virtual screens in the dialog box on the Settings Tab of the Display Properties Control Panel, one for each head of the Imaging Board. If DualView is not enabled, you will see a single virtual screen in the display properties dialog for both heads of a Imaging Board. If you wish to enable simply click **"Next"** to continue. If you do not wish to enable DualView **"un-check"** the checkbox

next to “Enable the DualView device.”, and click **“Next”** to continue.

Barco Device Driver Setup
DualView allows you to set the display properties for multiple screens independently.
Enable the DualView device?
< Back
Next >
Cancel

Figure 41

12. The screen shown in figure 42 displays the device(s) that will be installed. If you want to change your selection, click **Back** and you will see the previous screen. To begin installation, click **“Next”** to continue. If you want to end the installation without installing the driver, click **“Cancel”** and the Wizard will exit.

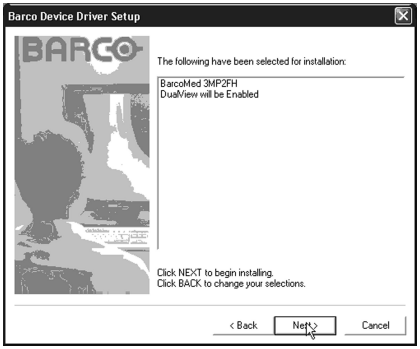
Barco Device Driver Setup
The following have been selected for installation:
BarcoMed 3MP2FH
DualView will be Enabled
Click NEXT to begin installing.
Click BACK to change your selections.
< Back
Next >
Cancel

Figure 42

13. Prior to beginning the installation the BarcoMed Driver Install Wizard will warn you that while the driver is being installed your display may flicker (figure 43). Click **“OK”** to continue.

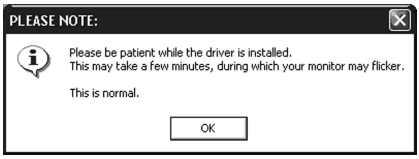
PLEASE NOTE:
Please be patient while the driver is installed.
This may take a few minutes, during which your monitor may flicker.
This is normal.
OK

Figure 43

While the driver is being installed the screen shown in figure 44 will be visible.

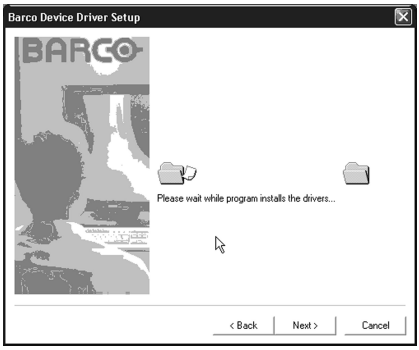

Figure 44

14. During the driver installation Windows XP will warn you that the driver has not passed Windows XP Logo Testing (see figure 45).

Hardware Installation
The software you are installing for this hardware:
BarcoMed 3MP2FH
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 45: Windows XP Windows Logo Testing Warning Screen

Click **“Continue Anyway”** to continue installing the driver or click **“STOP the Installation”** to cancel the driver installation.

15. If the Wizard has successfully installed the drivers for all of the displays supported by your BarcoMed 3MP2FH imaging board(s), the Wizard will prompt you to click **"Finish"** (see figure 46). Clicking on **"Finish"** will exit the Wizard and restart your computer now. Click **"Cancel"** to exit the Wizard and restart your computer at a later time. If the installation failed, click **"Finish"** to exit the Wizard (see figure 48) and try reinstalling the drivers following the steps above or following the step outlined in the section "Reinstalling or Updating your BarcoMed Drivers" found later in this chapter.

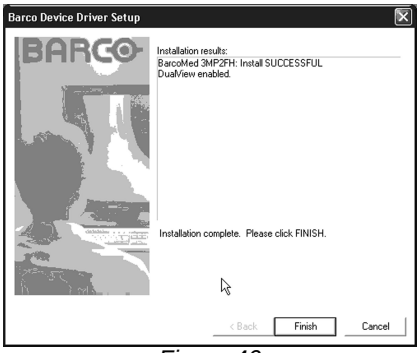

Figure 46

Click **"Yes"** to confirm reboot when you see Figure 47.

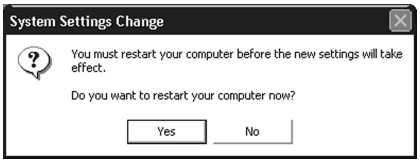
System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

Figure 47

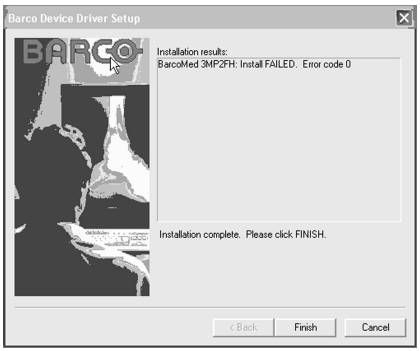

Figure 48

Setting the Resolution of Your ImageTile Display Panel with DualView Enabled

By default DualView is enabled when you install the BarcoMed Windows XP driver. DualView is a Windows XP feature that allows a dual headed imaging board with a single graphics chip to display two separate desktops, one for each monitor instead of a single virtual desktop that spans across both monitors. If you wish to disable DualView, you can do so through the Monitor Configuration settings of the Barco Metheus Configuration Tab. Instructions for disabling DualView can be found at the end of this chapter.

1. To set the resolution for your ImageTile display panel(s), right click on an empty space of the desktop and select **"Properties"**.
2. Select the **"Settings"** tab (see figure 49 on the next page). Now select the **rectangle** that represents the first ImageTile display panel attached to the BarcoMed 3MP2FH Imaging Board you are working with.

   SPECIAL NOTE: If the BarcoMed 3MP2FH Imaging Board is not running VGA, the display may not be enabled yet. To enable the device **check** the **"Extend my Windows desktop onto this monitor"** checkbox. Do not click the **"Apply"** button at this time.
3. Click on the **"Advanced"** Button.
4. Select the **"Adapter"** tab and then click on the **"List All Modes…"** button. Select the resolution and refresh rate that your ImageTile display supports from the dialog box and click **"OK"**.
5. Click **"OK"** on the bottom of the Adapter Control Panel. If the **"OK"** button on the bottom of the Adapter Control Panel is not visible, press the **"Tab Key"** once and then press **"Enter"**. Your high resolution display(s) should now synchronize and display the Windows desktop.
6. Click **"Yes"** if asked, "Your desktop has been reconfigured. Do you want to keep these settings?" Windows XP will only ask this question for the first display on each BarcoMed 3MP2FH board.
7. To set the resolution of the second ImageTile display panel attached to the BarcoMed 3MP2FH Imaging Board you are working with, open the **"Display Properties Control Panel"** again by right clicking on the desktop and select **"Properties"**. Now select the **"Settings"** tab. Now repeat step 3 – 6 above.

Repeat steps 1 – 7 to set the resolution for the displays on all the BarcoMed 3MP2FH Imaging Boards installed in your system.

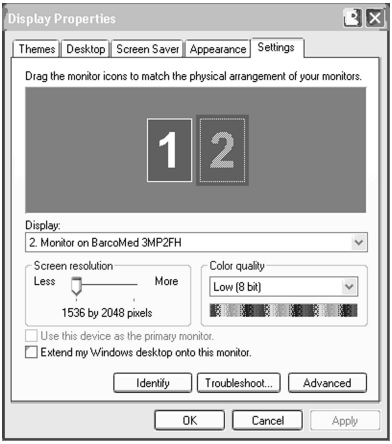

Figure 49: Windows XP Display Properties Settings Tab for the 3MP2FH with DualView enabled

Note: The system shown in figure 49 above is a dual-head, single BarcoMed 3MP2FH imaging board, no 3rd party VGA card configuration. Your system may look different.

Setting the Resolution of Your ImageTile Display Panel with DualView Disabled

If you chose to disable DualView when you installed the BarcoMed Windows XP driver, Windows XP will display a single virtual desktop that spans across both displays attached to each 3MP2FH board.

1. To set the resolution for your ImageTile display panel(s), right click on an empty space of the desktop and select **"Properties"**. Select the **"Settings"** tab (see figure 50 on the next page). Now select the **rectangle** that represents the BarcoMed 3MP2FH Imaging Board you are working with.

   SPECIAL NOTE: If you are using the VGA capabilities of your BarcoMed 3MP2FH Imaging Board, the resolution for that board may still be set to a VGA resolution of "640 x 480" pixels. If the BarcoMed 3MP2FH Imaging Board is not running VGA, the device may not be enabled yet. To enable the device check the "Extend my Windows desktop into this monitor" **checkbox**. Do not click the **"Apply"** button at this time.

2. Click on the **"Advanced"** Button.

3. Select the **"Adapter"** tab and then click on the **"List All Modes…"** button. Select the resolution and refresh rate that your ImageTile display supports from the dialog box and click **"OK"**.

   Note: The resolutions shown will be based on the number of heads the imaging board supports.

   For example: The BarcoMed 3MP2FH Imaging Board supports two ImageTile display panels. If the resolution of each display is 1536x2048x256, Windows XP will display the resolution as 3072x2048x256. If necessary you can change the number of display panels later by using the Barco Metheus Configuration Tab.

4. Click **"OK"** on the bottom of the Adapter Control Panel. If the **"OK"** button on the bottom of the Adapter Control Panel is not visible, press the **"Tab Key"** once and then press **"Enter"**. Your ImageTile display(s) should now synchronize and display the Windows desktop.
5. Click **"Yes"** if asked, "Your desktop has been reconfigured. Do you want to keep these settings?"

Repeat steps 1 – 5 to set the resolution of the displays attached to each BarcoMed 3MP2FH Imaging Board installed in your system.

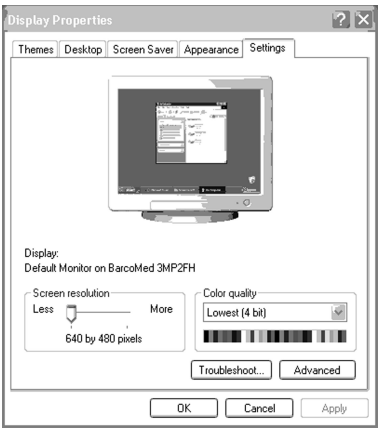

Figure 50: Windows XP Display Properties Settings Tab for the 3MP2FH with DualView disabled.

Note: The system shown in figure 50 above is a dual-head, single BarcoMed 3MP2FH imaging board, no 3rd party VGA card configuration. Your system may look different.

Disabling DualView under Windows XP

DualView can be disabled on a BarcoMed Imaging Board through the Monitor Configuration section of the Barco Metheus Configuration Tab by following the steps listed below.

1. Open the “Display Properties Control Panel” by right clicking on the desktop, then select “**Properties”**.
2. Click on **“Settings”** tab. Double click on the rectangle that represents first ImageTile display panel attached to the BarcoMed Imaging Board you are working with to bring up its property page. Click on the **“BARCO Metheus Configuration”** tab.
3. Select **“Disable DualView”** from the “Monitor Configuration” drop down menu (see figure 51, below). Click **“OK”**, twice. Your system will automatically shutdown and restart.

Figure 51: Barco Metheus Configuration Tab – Disabling DualView

4. When your machine comes back up, you will need to re-set up your ImageTile displays with the desired display settings.

If you wish to Disable DualView on more than one BarcoMed 3MP2FH Imaging Board repeat steps 1 – 4 above for each board.

Re-enabling DualView under Windows XP

If you have disabled DualView using the method described on the previous page and decide you want to re-enable it, follow the steps listed below.

1. Open the “Display Properties Control Panel” by right clicking on the desktop, then select **“Properties”**.
2. Click on **“Settings”** tab. Double click on the rectangle that represents the BarcoMed Imaging Board you are working with to bring up its property page. Click on the **“BARCO Metheus Configuration”** tab.
3. Select **“Enable DualView”** from the “Monitor Configuration” drop down menu (see figure 52 below). Click **“OK”**, twice. Your system will automatically shutdown and restart.

Figure 52: Barco Metheus Configuration Tab – Enabling DualView

4. When your machine comes back up, you will need to re-set up your ImageTile displays with the desired display settings.

If you wish to re-enable DualView on more than one BarcoMed 3MP2FH Imaging Board repeat steps 1 – 4 above for each board.

Installing the Driver Using the Windows XP Found New Hardware Wizard

SPECIAL NOTE: Prior to installing the BarcoMed drivers you MUST install the BarcoMed Imaging Board(s), connect the ImageTile display panel(s) to the card(s), and turn the ImageTile display on. Refer to the Hardware Installation section of this manual for instructions on installing the BarcoMed Imaging Board(s) and connecting them to the ImageTile display panel(s).

The following driver installation instructions presume that Windows XP is already installed on your system. If you need to install or reinstall Windows XP on your system you must first remove the BarcoMed Imaging Boards and use a 3rd party VGA card and VGA monitor during the Windows XP installation process.

To install the BarcoMed 3MP2FH Windows Display Driver for the first time follow the steps below, if you are reinstalling the drivers or installing a new driver release skip to the next section:

1. Install the BarcoMed 3MP2FH Imaging Board(s) into your machine. Please refer to the hardware installation section for more information.
2. Boot the machine and log on using an account with administrative privileges.
3. Windows XP will do a thorough inspection of your system and will announce that it has found new hardware. This may take several minutes. Please be patient.
4. Close any informational balloons that Windows XP may open in the lower right hand corner of the monitor.
5. Windows XP will automatically launch the “Found New Hardware Wizard”.
6. Insert the BarcoMed software CD into your computer’s CD drive. Select the radio button beside “Install the software automatically (Recommended)”. Click **“Next”**.
7. Windows XP will now search the computer and CD for the correct driver. When Windows XP has found the BarcoMed 3MP2FH driver it will warn you that the software “has not passed Windows Logo testing to verify its compatibility with Windows XP.” Click **“Continue Anyway”** to install the drivers.
8. When Windows XP has finished installing the drivers, click **“Finish”** on the “Found New Hardware Wizard”.

If you are installing more than one BarcoMed 3MP2FH board in your system, Windows will again do a thorough inspection of your system and automatically detect them and again launch the found New Hardware Wizard for each board installed. Repeat steps 6 through 8

until you have installed the drivers for all of the BarcoMed 3MP2FH boards in your system. Prior to installing the drivers for any additional imaging boards, we strongly recommend that you set the resolution for the monitors connected to the first boards installed. If you don't, Windows XP may pick a resolution that is not supported by your display and you will need to reboot in VGA mode to continue. If you are installing multiple BarcoMed 3MP2FH boards, Windows XP will prompt you to restart your system once you have finished installing the drivers for all of the boards. This may take several minutes. Please be patient.

Reinstalling or Updating your BarcoMed Drivers

To reinstall your current BarcoMed Display Driver or install a new version of the BarcoMed Display Driver follow the steps below:

1. Right click on the desktop and select **"Properties"**. Select the **"Settings"** tab. Now select the **rectangle** that represents the BarcoMed 3MP2FH Imaging Board whose driver you wish to reinstall or update.
2. Click on the **"Advanced"** Button.
3. Select the **"Adapter"** tab and then click on the **"Properties"** button.
4. Select the **"Driver"** tab and click the **"Update Driver..."** button. The "Hardware Update" Wizard will start.
5. Select the **"Radio Button"** beside "Install from a list or specified location (Advanced)". Click **"Next"**.
6. On the "Please choose your search and installation options." page of the Hardware Update Wizard, select the **"Radio Button"** beside "Don't search, I will choose the driver to install". Click **"Next"**.
7. In the "Select a Device Driver" page of the Wizard click "**Have Disk**." Insert your ImageTile Driver Media into the CD drive and select the correct device from the "Copy manufacturer's files from" drop down menu or browse to the location of your driver and Click **"OK"**.
8. Select "BarcoMed 3MP2FH " in the "Select a Device Driver" window. Click "**Next**".
9. When Windows XP has begun installing the BarcoMed 3MP2FH driver it will warn you that the software "has not passed Windows Logo testing to verify its compatibility with Windows XP." Click **"Continue Anyway"** to install the drivers.
10. When the drivers are installed, click **"Finish"** on the "Update Driver Wizard" and close the properties page for the device. If you are installing multiple BarcoMed boards **you must reboot** your

system when asked and set the resolution of the first monitor controlled by the first BarcoMed 3MP2FH. You can then install the remaining adapters associated with all of the BarcoMed 3MP2FH boards installed in your system. Repeat steps 3 – 11 until you have installed all of the adapters.

Setting the Resolution of Your ImageTile Display Panel

To set the resolution of your ImageTile Display Panel(s), see the sections: “Setting the Resolution of Your ImageTile Display Panel with DualView Enabled” or “Setting the Resolution of Your ImageTile Display Panel with DualView Disabled” earlier in this chapter.

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BARCO METHEUS CONFIGURATION TAB

Introduction

After the BarcoMed 3MP2FH Windows Display Driver is installed, a new Display Properties tab is available for configuring special features of the BarcoMed 3MP2FH imaging board. Please note that you must have logged on to Windows using an account with administrator privileges in order to use the BARCO Metheus Control Panel to change any display settings.

1) Open the “Display Properties Control Panel” by right clicking on the desktop, then select “Properties”..
2) Under Windows NT 4.0, Click on the “BARCO Metheus Configuration” Tab. (see figure 53, below).

   Under Windows 2000, click on “Settings” tab. Double click on the rectangle that represents the BarcoMed 3MP2FH to bring up its property page. Click on the “BARCO Metheus Configuration” tab (see figure 54, on the next page).

   Under Windows XP, click on “Settings” tab. Double click on the rectangle that represents the BarcoMed 3MP2FH to bring up its property page. Click on the “BARCO Metheus Configuration” tab (see figure 55, on the next page).

Figure 53: Configuration Tab under Windows NT 4.0

Figure 54: Configuration Tab under Windows 2000

Figure 55: Configuration Tab under Windows XP

Status

Displays the current BarcoMed Imaging Board, driver, and the currently selected display resolution.

Graphics Board

This displays the current BarcoMed Imaging Board.

Driver Version

This displays the current BarcoMed driver version.

Resolution

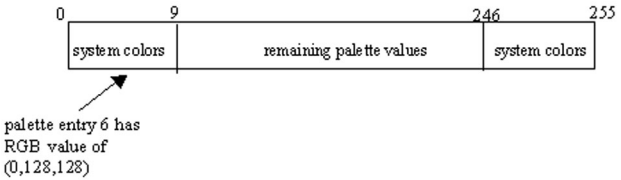
This displays the currently selected display resolution.

Palette Mode

You can choose one of the following Palette Modes:

UserModifiable Color Palette

This option allows applications to modify the palette contents dynamically. As indicated by the picture below, this mode reserves the first 10 and last 10 entries in the palette for the Windows operating system, but applications can manipulate the middle 236 entries. This is the standard palette mode as configured by Windows.

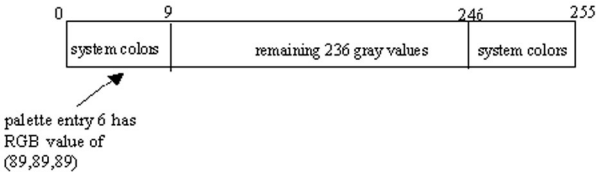


Static Gray Palette including standard system colors

This option sets the palette to be a static set of 256 gray values. Therefore, applications are denied the ability to dynamically change or allocate palette entries. This prevents palette conflicts between applications, which can cause image color values to appear distorted in the background application.

As shown in the next picture, the 20 standard system colors are converted from RGB to gray values. The rest of the 236 entries from

index 10 to 245 contain the missing gray values so that the palette has the full 256 gray values within it.

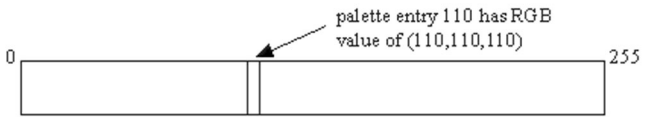


Please note that dithering is not permitted while in this mode. The Enable Dithering check box will be grayed-out, and dithering will be automatically disabled regardless of whether this check box is checked. This complies with the Windows standard interface method. If you are unsure whether or not your application requires this “Static Gray Palette including Standard System Colors” mode, contact your application provider.

Static Gray Palette with NO system colors

This option sets the palette to be a static linear ramp of 256 shades of gray. Therefore, applications are denied the ability to dynamically change or allocate palette entries. This prevents palette conflicts between applications, which can cause image color values to appear distorted in the background application.

As shown in the picture below, each of the 256 entries in the palette has an RGB value of (i, i, i) where i is the index from 0 to 255.



If you wish to use a static gray palette we recommend using the “Static Gray Palette including Standard System Colors” option instead of this one. This is due to the fact that some applications assume that the first and last 10 entries of the palette are the standard system colors. In this palette mode, these entries are made up from entries in the bottom or the top of the gray ramp. Please note that dithering is not permitted while in this mode. The Enable Dithering check box will be grayed-out, and dithering will be automatically disabled regardless of whether this check box is checked. This complies with the Windows standard interface method. If you are unsure whether or not

your application requires this “Static Gray Palette with NO System colors” mode, contact your application provider.

Drawing Modes

You can choose one or both of the following Drawing Modes:

Enable DirectDraw

This option allows the user to enable or disable DirectDraw. DirectDraw is a software interface that provides direct access to display devices while maintaining compatibility with the Windows graphics device interface (GDI). DirectDraw provides a device-independent way for applications to gain access to the hardware features of specific display devices. If you enable DirectDraw, your application will have the choice of using DirectDraw or GDI. If you disable DirectDraw, your application will use GDI instead of DirectDraw. Please note that in any case, your application can always use BarcoMed driver functions (i.e. WinBarco) or other graphics extensions (such as OpenGL).

Enable Dithering

This option allows the user to enable or disable dithering. Dithering is a technique for increasing the perceived range of colors in an image at the cost of spatial resolution. Adjacent pixels are assigned differing color values; when viewed from a distance, these colors seem to blend into a single intermediate color. The technique is similar to the half-toning used in black-and-white publications to achieve shades of gray. Please note that this option is only available when the User Modifiable Palette Mode is selected. This is because dithering is only supported under Windows when the display is palletized. If either the “Static Gray Palette including Standard System Colors” mode or the “Static Gray Palette with NO System colors” mode is selected, the “Enable Dithering” check box will be grayed-out, and dithering will be automatically disabled regardless of whether this check box is checked. This complies with the Windows standard interface method.

Monitor Configuration

This option allows you to select the number of monitors that the current display boards should drive, as well as how the monitors should be positioned. For example, if the current board installation is capable of driving four heads, but you only have three monitors which are placed in a single row, then you can select the “Three monitors –

one row” option from the pull-down list. This would cause the Windows virtual desktop to be resized to fit on the three monitors, and you can move your cursor horizontally from one screen to the other.

If “Custom Configuration” is displayed, it means that the current monitor configuration was set via the registry and it doesn’t agree with any of the configurations that the display control panel supports. Contact Barco Medical Imaging Systems for further information.

Languages supported

The Barco Metheus Configuration Tab supports the following languages:

English (U.S) (default)
Dutch
German
Korean
Japanese
Simplified Chinese
Traditional Chinese

To change between the languages select the correct region via the Regional Settings Control Panel in your machine’s Start > Settings > Control Panel.

BARCO METHEUS HARDWARE CONFIGURATION TAB

Introduction

The BARCO Metheus Hardware Configuration Tab is used for gathering information about BarcoMed imaging boards. For all BarcoMed imaging boards it will display PCI information. In addition for BarcoMed imaging boards based on the AURA video chipset it will also display information about the Firmware installed on the board.

BarcoMed Board Types		
AURA Boards	**Non-AURA Boards**	**BARCO Metheus Hardware Configuration Tab Support**
2MP2H		PCI and Firmware Information
3MP2FH		PCI and Firmware Information
5MP2AURA		PCI and Firmware Information
	2MP1	PCI Information Only
	2MP1NT	PCI Information Only
	2MP2	PCI Information Only
	4MP2	PCI Information Only
	5MP1H	PCI Information Only
	5MP2	PCI Information Only

To access the BARCO Metheus Hardware Configuration Tab do the following:

1. Open the “Display Properties Control Panel” by right clicking on the desktop, then select “Properties”.
2. Under Windows NT 4.0, Click on the “BARCO Metheus Hardware Configuration” Tab. (see figure 56, below).

   Under Windows 2000 and Windows XP, click on the “Settings” tab. Double click on the rectangle that represents the BarcoMed 3MP2FH to bring up its property page. Click on the “BARCO Metheus Hardware Configuration” tab (see figure 57, on the next page).

Figure 56: BARCO Metheus Hardware Configuration Tab under Windows NT 4.0

Figure 57: BARCO Metheus Hardware Configuration Tab under Windows 2000 and Windows XP

Using The BARCO Metheus Hardware Configuration Tab

Device

Displays the current BarcoMed Imaging Board, driver, and the currently selected display resolution.

Identify Device: This button is for BarcoView Metheus internal use only and is greyed out.

PCI Information

Device ID: Displays the device's PCI Device ID number.

Vendor ID: Displays the device manufacturer's PCI Vendor ID number.

Subsystem ID: Displays the device's PCI Subsystem ID number.

SubsystemVendorID: Displays the device's PCI Subsystem Vendor ID number.

VGA Status: Displays whether the VGA capabilities of the BarcoMed board are enabled or disabled.

Firmware Information

Product Name: Displays the name of the BarcoMed imaging board installed in the selected PCI slot.

Serial Number: Displays the serial number of the BarcoMed imaging board installed in the selected PCI slot.

VGA Bios Version: Displays the VGA Bios version for the BarcoMed imaging board installed in the selected PCI slot.

Firmware Version: Displays the firmware version for the BarcoMed imaging board installed in the selected PCI slot.

Hardware Version: Displays the Hardware Version for the BarcoMed imaging board installed in the selected PCI slot.

"Advanced ..." Button: By clicking on this button, the user can display more information about the BarcoMed imaging board installed in the selected PCI slot.

"Generate Report" Button: Clicking this button will produce two reports. It will first run the Windows Diagnostics program which will generate a report that is saved to a text file. For Windows XP and Windows 2000, this file will be saved on the c:\ drive and it will be named BarcoMetheusReport.txt. For Windows NT 4.0, this file will be saved on the desktop and it will have the same name as the machine for which the report is being generated. The other report that is generated contains information about the Barco display adapters installed in the system and will be named BarcoMedDeviceInfo.txt. This report will be saved on the desktop. These files can be emailed to our customer support department when reporting a problem. To locate the closest BarcoView Support office, see the Support section on www.barcomedical.com. If your system is connected to the internet and a web browser is installed you can click on the link at the top of the BARCO Metheus Hardware Configuration Tab to get to our web site.

“Update Device...” Button: Clicking this button will run the BarcoMed Hardware Configuration Wizard. This program allows the user to flash update the firmware stored in the ROM of the currently selected BarcoMed imaging board. The BarcoMed Hardware Configuration Wizard is a “wizard style” application that uses dialog boxes to guide the user through the flash update procedure. The user will be prompted to select a firmware update file to use for the update. Therefore you will need a firmware update file for your specific BarcoMed imaging board in order to update it’s firmware. This file will be provided by BarcoView if and when a firmware update is required.

Special Note: The BarcoMed Hardware Configuration Wizard is applicable only for AURA-based imaging boards.

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BARCO METHEUS DPMS OVERVIEW

Introduction

The Barco Metheus DPMS (Display Power Management Signaling) Screen Saver allows the user to set power and monitor saving features for medical monitors driven by BarcoMed Imaging Boards. At the end of the work day, the monitor will enter certain DPMS states as requested by the imaging board. This is accomplished through standardized signals between the monitor and imaging board.

The default DPMS state is the Off state. In addition to simply entering the Off state after the work day, the user can specify that the monitor first go through two other DPMS states before going into Off state. These two other states are Stand-By and Suspend. The user can specify how much time should be spent in each state in the “Amount of Time in each DPMS Power State” section.

A valuable feature of the Barco Metheus DPMS Screen Saver is that it will automatically ensure that CRT based monitors are warmed up for the start of the work day. All CRT based monitors require some warm-up time before they are at full performance.

On Barco ImageTile displays, the I-GUARD will stabilize the image within a few seconds after the monitor returns to the active state, thus eliminating the need for a warm-up period at the beginning of the work day.

On CRT based monitors, such as the Barco MGD series, a “regular” screen saver can be invoked during user inactivity during the work day. This “regular” screen saver and its settings can be chosen from the “Screen Saver During Work Day” section. We recommend using an all black screen saver, such as the “Barco Metheus Blank Screen” saver, for the longest phosphor life.

On LCD based monitors, such as the Barco ImageTile displays, it is not necessary to invoke a screen saver as there is no CRT phosphor to preserve. However, one can extend the life of the backlight in the LCD monitor, in addition to realizing great power savings, during period of user inactivity by using DPMS to quickly enter the Off state. We recommend setting the work day to be as short as possible to get the maximum power savings on ImageTile displays.

The Barco Metheus DPMS Screen Saver can also be used when no one is logged on.

BarcoMetheus DPMS Screen Saver Options

From the “Barco Metheus DPMS Screen Saver Control Panel” you can change many DPMS screen saver elements simultaneously. The DPMS screen saver elements in each scheme are work schedule, work day screen saver, DPMS settings after work day, and many additional options.

Current Scheme

Lists the three “DEFAULT” schemes which you can use as they are. Or you can modify them to meet your office’s schedule.

Save As

Saves your current Barco Metheus DPMS Screen Saver settings. The name you specify will appear in the Scheme list so you can easily restore these settings later.

Delete

Deletes the scheme that is selected in the Scheme box.

Work Schedule

Select the begin and end times for each work day. If the system is not expected to be used, leave both start and end work day times as the same time.

Begin Work Day

The “Begin Work Day” time is the time after which the system is expected to start being used. During the work day, the screen saver selected by the user in the “Screen Saver During Work Day” section is used during user inactivity.

End Work Day

The “End Work Day” time is the time after which the system is not expected to be used any more for that day. After the work day, the display is set to one of the DPMS states (Stand-By, Suspend, or Off) by the imaging board during user inactivity.

Screen Saver During Work Day

On CRT based monitors, such as the Barco MGD series, a “regular” screen saver can be invoked during user inactivity during the

work day. This “regular” screen saver and its settings can be chosen from the “Screen Saver During Work Day” section. We recommend using an all black screen saver, such as the “Barco Metheus Blank Screen” saver, for the longest phosphor life.

On LCD based monitors, such as the Barco ImageTile displays, it is not necessary to invoke a screen saver as there is no CRT phosphor to preserve. However, one can extend the life of the backlight in the LCD monitor, in addition to realizing great power savings, during period of user inactivity by quickly entering the Off state. We recommend setting the work day to be as short as possible to get the maximum power savings on ImageTile displays.

Available Savers

Lists the available screen savers.

Settings

Changes settings for the selected screen saver.

DPMS Settings After Work Day

If you have an imaging board that supports DPMS calls, then you will be able to set the DPMS Settings for after the work day. Otherwise, a text box will be displayed tell you why DPMS functions are not available.

Amount of Time in each DPMS State

After the work day, the monitor will be placed into one of the following DPMS Power States: Stand-By, Suspend, or Off. The default setting is for the monitor to directly go into the Off State and spend no time in the Stand-By or Suspend states. If the user wishes to go into the Stand-By or Suspend states before going into the Off state, select the required amount of time for each state.

If requested, the monitor will first go into Stand-By state, then into Suspend state, and then into Off state. The properties of DPMS states are listed in the following table:

DPMS State	Power Savings	Monitor Recovery Time
On	None	N/A
Stand-by	Minimal	Short
Suspend	Substantial	Longer
Off	Maximum	Longest

Monitor Settings

Select the amount of time the monitor requires to warm-up. Since all CRT based monitors require some warm-up time before they are at full performance, this ensures that the monitor is ready for use at the beginning of the work day.

If you have a Barco Medical Monitor, select “Barco Quick Start.” If a non-Barco monitor is being used, select the amount of time it takes your monitor to warm up via the “Monitor Setting” section. Contact your monitor vendor for this warm-up time.

On Barco ImageTile displays, the I-GUARD will stabilize the image within a few seconds after the monitor returns to the active state so there is no need for a warm-up time period.

Use As Logon Screen Saver

Check the box to use the Barco Metheus DPMS Screen Saver when no one is logged into the system.

Uncheck the box to use the default screen saver when no one is logged into the system.

Installing the BarcoMetheus DPMS Screen Saver

To install the DPMS Screen Saver, you must have the Microsoft Windows Installer program installed on your system. To verify that it is installed use Windows Explorer to search for the following file: **“msiexec.exe**”. If you do not find this file, you can install it from the BarcoMed Software CD by following the steps below. If the Windows Installer is installed on your system skip to step 5 below.

1. Insert the BarcoMed Software CD in your system’s CD drive.

2. Use Windows Explorer to navigate to the following folder: **[CD drive]:\DPMS_ScreenSaver**:
   On Windows NT 4.0 systems install the Windows Installer by double clicking on the file **"instmsiw.exe**".
   On Windows 2000 and Windows XP systems install the Windows Installer by double clicking on the file **"instmsia.exe**".
3. Restart your system if prompted to do so.
4. Now install the DPMS Screen Saver by double clicking on the file:
5. **"[CD drive]:\DPMS_ScreenSaver\setup.exe**". This will launch the Windows Installer which will guide you through the DPMS install process. Click **"Next"** to continue.
6. The "Customer Information" page will appear. The Installer will automatically fill in the blanks using the information entered when Windows was installed on your system. You may change this information if you wish. We recommend that you install DPMS for all users of the computer. Click **"Next"** to continue.
7. The "Setup Type" page will now appear. Choose **"Typical"** to install the default schemes with English names. Choose **"Custom"** to install the default schemes with either Dutch or German names. Currently the default schemes are not supported in the Japanese, Korean and Chinese languages. We recommend that the users of these three languages install the English default schemes and then rename and save them into their language in the DPMS configuration screen. Click **"Next"** to continue.
8. The "Ready to Install Program" page will now appear, click **"Install"** to install DPMS.
9. When the Windows Installer has finished installing DPMS, the "Installshield Wizard Completed" page will appear, click **"Finish"** to exit the program.

Getting started with the BarcoMetheus DPMS Screen Saver

The easiest way to get started is to select an existing Scheme and then modify it with your preferences. Schemes are separated into two kinds, DEFAULT (global) and PRIVATE (personal).

Upon installation, three default schemes are installed and no private schemes are installed.

Default schemes are visible to all users of the system. However, they can be modified only by users with administrator privileges. If a user who does not have administrator privileges tries to save a scheme using an existing default scheme name, an error message is

displayed saying “you must have administrator rights to modify a default scheme.” If an administrator saves a scheme using an existing default scheme name, a message is displayed to tell the user that the modification is saved to a default scheme and will be visible to all users. If the administrator saves a scheme using a new name, then the user is asked if the scheme should be saved as a default scheme or a private scheme. Since there is no distinction between how a default scheme and a private scheme is displayed, it is highly recommended that the user use a different naming convention to distinguish the two (i.e. use “DEFAULT: ...” for default schemes).

Private schemes are shared and visible to all users of the system. Users who do not have administrator privileges can create, modify or delete private schemes. However, only the user who created them can modify or delete them. When the delete button is pressed, the user is asked to confirm the delete request.

Using the BarcoMetheus DPMS Screen Saver

To set up the Barco Metheus DPMS Screen Saver using one of the three default schemes, please do the following:

1. Open the “Display Properties Control Panel” by right clicking on an empty space of the desktop and then select the **“Screen Saver”** tab (see figures 58, 59 and 60).
2. Select the **“BarcoMetheus DPMS Screen Saver”** in the “Screen Saver” drop down menu if it is not already selected.
3. Click on the **“Settings”** button. The “Barco Metheus DPMS Screen Saver Control Panel” will open (see figure 58).
4. Use the default schemes by selecting one of the three default schemes. Click **“OK”**. Then Click **“OK”** again.

   Note: If you make any changes to any of the settings of one of the three default schemes, the Current Scheme field will blank and you MUST SAVE your changes by clicking on the **“Save As ...”** button. When you click on the **“Save As ...”** button, the name of the last scheme you used will be automatically displayed, you can then choose to use that scheme name or enter a new name. After the you have saved the scheme, then click OK and the new scheme will be in effect.

Figure 58: Windows NT 4.0 Screen Saver Tab

Figure 59: Windows 2000 Screen Saver Tab

Figure 60: Windows XP Screen Saver Tab

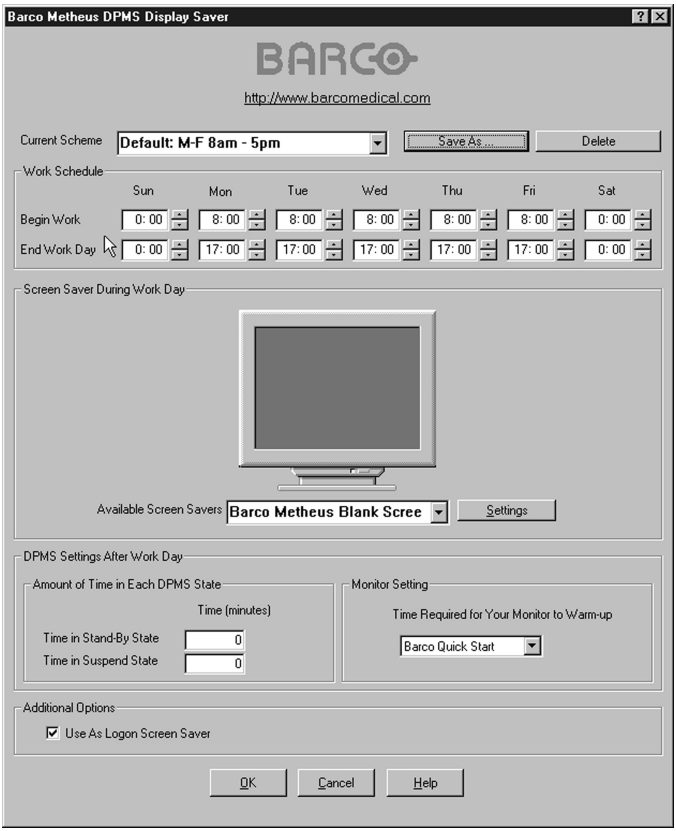

Figure 61: Barco Metheus DPMS Setting Control Panel

To create a new scheme by modifying one of the three default schemes please do the following.

1. Open the “Display Properties Control Panel” by right clicking on the desktop and then select the **“Screen Saver”** tab.
2. Select the **“BarcoMetheus DPMS Screen Saver”** in the “Screen Saver” drop down menu if it is not already selected.
3. Click on the **“Settings”** button. The “Barco Metheus DPMS Screen Saver Control Panel” will open.
4. Select one of the default schemes from the “Current Scheme” drop down menu.

5. Set the Work Schedule by setting the beginning and ending time of your work day for each day of the week.
6. Select the screen saver you wish use during the work day in the “Screen Saver During Work Day” section.
7. Select the amount of time you wish to spend in the Stand-By and Suspend states after the work day has ended. Please note that after the time specified has elapsed when you are in Stand-By or Suspend, you will automatically go into the Off state.
8. Select the amount of time it takes for your monitor to warm up. If you have a Barco Medical Monitor, select **“Barco Quick Start”**. If you are using a non-Barco monitor, select the amount of time it takes your monitor to warm up via the “Monitor Setting” section. Contact your monitor vendor for this warm-up time. On Barco ImageTile displays, the I-GUARD will stabilize the image within a few seconds after the monitor returns to the active state, thus eliminating the need for a warm-up period at the beginning of the work day.
9. If you wish to use this DPMS screen saver as the screen saver at logon time, check the **“Use As Logon Screen Saver”** box in the “Additional Options” section.
10. Save your preferences by pressing the **“Save As”** button and entering a new profile name in the **“Save Profile Setting”** dialog box.
11. Apply your new scheme by clicking **“OK”.**
12. Click **“OK”** again to close the “Display Properties Control Panel”.

Uninstalling DPMS

To remove DPMS screen saver from your system do the following:

For Windows NT 4.0 Systems

1. Launch the Windows Control Panel.
2. Then double click the **“Add/Remove Programs Icon”**.
3. Highlight **“DPMS Screen Saver”** in the Dialog Box. Click the **“Add/Remove”** button.
4. The Windows Installer will ask if you are sure you want to remove this program, click **“Yes”**.
5. When the Windows Installer has finished removing the program, click **“OK”** to exit the Add/Remove Program Properties dialog box.
6. Close the “Control Panel” window.

For Windows 2000 and Windows XP Systems

1. Launch the Windows Control Panel.
2. Then double click the on **“Add/Remove Programs”**.
3. Highlight **“DPMS Screen Saver”** in the “Currently Installed Programs” window. Click the **“Change/Remove”** button.
4. The Windows Installer will ask if you are sure you want to remove this program, click **“Yes”**.
5. When the Windows Installer has finished removing the program, click **“Close”** to exit the Add/Remove Program Control Panel.
6. Close the “Control Panel” window.

SETTING UP SENTINEL

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INTRODUCING SENTINEL

What is Sentinel?

The built-in SENTINEL® board and software turn IMAGETILE ® into an intelligent, web-enabled device, which can be addressed via the facility network through a user-friendly browser interface.

Thanks to Sentinel, you can consult a number of the panel's settings online, on any PC connected to the network.

Moreover, Sentinel can generate e-mails to user-defined addresses in case a setting exceeds a warning or error tolerance level.

Before you can use the ImageTile as a web-enabled device, it must get an Internet Protocol address.

Therefore, you must install and run the "Sentinel Setup" software, which allows you to set the ImageTile's Internet Protocol address properties.

Sentinel setup overview

To complete sentinel setup, you must perform the following actions:

1 Install the Sentinel Setup software

2 Run the Sentinel Setup software to enter the Internet Protocol address properties.

These are no remote actions. They must be performed on the computer connected to the ImageTile.

About the Sentinel Setup software

The Sentinel Setup software allows you to enter the ImageTile's Internet Protocol address properties.

We discern 2 different situations, both requiring a different procedure:

a) You enter a new IP-address. This means the ImageTile has never got an address before.

b) The ImageTile has got an IP-address before, which you wish to change.

Both cases are treated in the chapters below, describing how to enter or acquire an IP-address.

INSTALLING THE SENTINEL SETUP SOFTWARE

To install the Sentinel Setup software, proceed as follows:

1 Exit all open programs.

2 Insert the Sentinel Setup CD-ROM in the CD-ROM drive.

3 Open the Sentinel Setup CD-ROM.

4 Double-click on **Setup.exe**. The Setup application starts.

5 Click on the **Next>** button.

6 Read the License agreement on the screen very carefully. Scroll down to read the complete text.

7 Click on **Yes** if you agree with the License agreement and wish to continue with the installation.

8 A window appears, indicating the directory where Sentinel Setup is going to be installed.

Click on the **Browse...** button if you want to change this directory. Click on the **Next>** button to continue.

9 Select the program folder where you wish to add the program icons.

Click on **Next>** to continue.

10 The installer program now starts to install the files at the appropriate place.

11 Click on **Finish** to complete the setup.

ENTERING INTERNET PROTOCOL ADDRESS PROPERTIES

Entering address properties for the first time

Note: When you enter the address properties for the first time, there is no time limit for entering the address properties.

But if the address properties have already been entered before (which you cannot distinguish when you start Sentinel Setup), there is a time limit of 2 minutes for entering the properties.

In that case, follow the procedure described in the following chapter "Changing the address properties".

Fixed or dynamic IP-addresses?

With the Sentinel Setup software, you can either enter a fixed IP-address or acquire an IP-address dynamically using the Dynamic Host Configuration Protocol (DHCP). This is possible when a DHCP server is available.

Important

We advise to enter a fixed IP-address. Therefore, ask the network administrator for a valid IP-address.

If you should use a DHCP server to find an IP-address, there is a disadvantage: It is possible that the IP-address automatically changes after some time.

If a user then tries to establish connection with the ImageTile by using the original IP-address, this will not be possible.

However, this problem can be avoided by linking a host name to the IP-address.

Moreover, it will be far more convenient for the user to consult the ImageTile on the web by surfing to a meaningful host name instead of an IP-address.

For more information, please consult your network administrator.

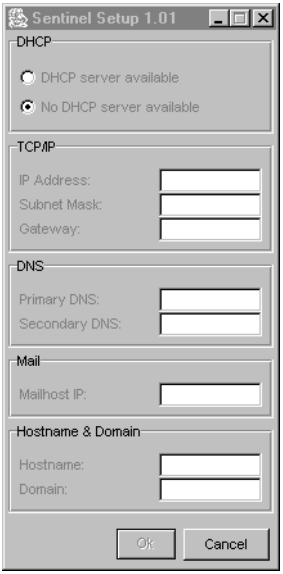
Entering a fixed IP-address

Proceed as follows:

1 Make sure the connected computer supplies an image to the ImageTile panel.

2 Make sure the ImageTile is connected to the network, using the network connector on the ImageTile itself.

3 Run the application "sentinel.setup" from the Start -> Programs -> Sentinel menu.
The Sentinel Network Configuration dialog appears.



4 Check the option **No DHCP server available**.

5 Enter valid addresses in the fields **IP-address**, **Subnet Mask** and **Gateway**. The addresses must be in the format nnn.nnn.nnn.nnn. For the correct addresses (also those below) consult your network administrator.

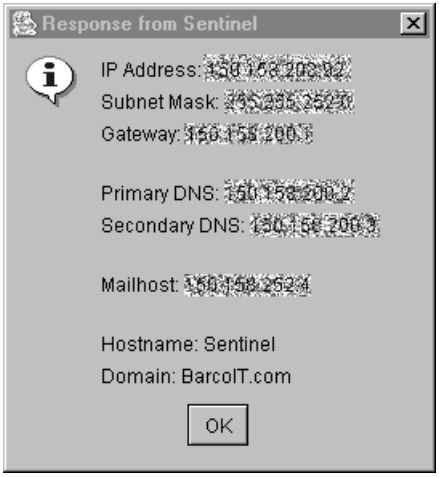
6 Enter valid addresses in the fields **Primary DNS** and **Secondary DNS**.

7 Enter the IP-address of your mail server in the field **Mailhost IP**.

8 Enter a name for the ImageTile panel in the field **Hostname**. Enter the name of your computer network domain in the field **Domain**. The domain name must be in the format xyz.com.

9 Click on **OK**.

10 As a result, the computer will try to establish communication with the ImageTile panel. When the communication has been established, the following message appears:



Important:

Write down the IP-address for future reference: You will need it to browse to the ImageTile later.

Click on **OK** to close the message.
Then click on **Cancel** in the Sentinel Network Configuration dialog to finish.

11 When the communication with the ImageTile failed, the following message appears:

Click on **OK** to close the message and enter the correct data in the dialog.
If the problem persists, please refer to the chapter "Connection problems" below.

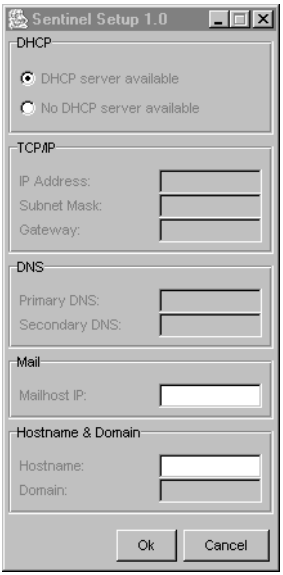
Acquiring an IP-address dynamically

Proceed as follows:

1 Make sure the connected computer supplies an image to the ImageTile panel.

2 Make sure the ImageTile is connected to the network, using the network connector on the ImageTile itself.

3 Run the application "sentinel.setup" from the Start -> Programs -> Sentinel menu.
The Sentinel Network Configuration dialog appears.



4 Check the option **DHCP server available**.

5 Enter the IP-address of your mail server in the field **Mailhost IP**. For the correct address, consult your network administrator.

6 Enter a name for the ImageTile panel in the field **Hostname**. Enter the name of your computer network domain in the field **Domain**.

7 Click on **OK**.

8 As a result, the DHCP server will find an IP-address for the ImageTile and the computer will try to establish communication. When the communication has been established, the following message appears:

Important:

The message that the software returns, mentions the IP-address of the Sentinel board. **Write down** the IP-address for future reference: You will need it to browse to the ImageTile later.

Click on **OK** to close the message.
Then click on **Cancel** in the Sentinel Network Configuration dialog to finish.

9 When the communication with the ImageTile failed, the following message appears:

Click on **OK** to close the message and enter the correct data in the dialog.
If the problem persists, please refer to the chapter "Connection problems" below.

Changing the address properties

When the ImageTile already has got an IP-address, you can change the Internet Protocol address properties using the Sentinel Setup software.

For more information about the different possibilities in entering the address properties, please refer to the previous chapter "Entering address properties for the first time".

To change the address properties, proceed as follows:

1 Make sure the connected computer supplies an image to the ImageTile panel.

2 Make sure the computer is connected to the network.

3 Make sure the ImageTile is connected to the network, using the network connector on the ImageTile itself.

4 Start your web browser and establish connection with the ImageTile panel.
If you do not know how to do this, please first read the section "ImageTile Web Control" further in this manual.

5 Reboot Sentinel by using the **Reboot Sentinel** function on the ImageTile web control pages (see next section).

Tip: *Alternatively, in order to reboot Sentinel, you can unplug the mains power plug from the ImageTile, and then plug it in again.*

6 Wait for at least 40 seconds for Sentinel to start up (happens in background).

7 Run the application "sentinel.setup" from the Start -> Programs -> Sentinel menu.
The Sentinel Network Configuration dialog appears.

8 Change the address properties. **You have two minutes** to change the data in the Sentinel Network Configuration dialog.

After two minutes, the program will try to establish connection automatically.

If you did not succeed entering the correct data within two minutes, or in case the connection failed, repeat this procedure.

In case of remaining connection problems, please refer to the chapter "Connection problems" below.

CONNECTION PROBLEMS

In this chapter you may find some hints to help you in case the computer cannot connect to the ImageTile after entering or changing the address properties.

The same hints may help in case you cannot remotely connect to the ImageTile with your web browser.

Re-enter the address properties

After entering the address properties, the connection with the ImageTile may fail because you have entered wrong data. So, you can try to repeat the procedure and enter the correct data.

Proceed as follows:

1 Make sure the connected computer supplies an image to the ImageTile panel.

2 Make sure the ImageTile is connected to the network, using the network connector on the ImageTile itself.

3 Reboot Sentinel by unplugging the mains power plug from the ImageTile, and then plugging it in again.

4 Wait for at least 40 seconds for Sentinel to start up (happens in background).

5 Run the application "sentinel.setup" from the Start -> Programs -> Sentinel menu.
The Sentinel Network Configuration dialog appears.

6 Re-enter the address properties. **You have two minutes** to change the data in the Sentinel Network Configuration dialog.

After two minutes, the program will try to establish connection automatically.

Enter a fixed IP-address

When trying to connect remotely to the ImageTile using your web browser, the connection may fail because the ImageTile has acquired an IP-address dynamically. In that case, the address may have changed since the time the address properties have been entered. You can avoid this situation by assigning a fixed IP-address.

Therefore, follow the procedure described in the chapter "Entering a fixed IP-address" above.

Looking up the ImageTile's IP-address

When trying to connect remotely to the ImageTile using your web browser, the connection may fail because you may have entered the wrong IP-address in the browser's address field.

When you have forgotten the ImageTile's IP-address, you can look it up on the computer connected to the ImageTile.

Therefore, start Windows Explorer on that computer and browse to the folder where the Sentinel Setup application is installed. By default this is C:\Program Files\Barco\Sentinel Setup\.

In this folder, open the file **ip_number.txt**. This file contains a list of IP-addresses. The last IP-address in the list is the ImageTile's current IP-address.

IMAGETILE WEB CONTROL

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INTRODUCTION

The ImageTile Web Control allows you to remotely connect to the ImageTile panel and to:

- Check a number of the ImageTile's parameters
- Define a warning and error tolerance for some of the ImageTile's parameters
- Enter the mail addresses to which a mail must be sent automatically in case one of the ImageTile's parameters exceeds the warning or error tolerance
- Enter the Sentinel "From" address that will appear on the warning and error mails

Important:

The ImageTile Web Control will exhibit problems when it runs simultaneously with MediCal Pro. Therefore, close MediCal Pro before starting the ImageTile Web Control.

CONNECTING TO THE IMAGETILE

Establishing a connection

Once you have assigned an IP-address or host name to the ImageTile (see previous section "Setting up Sentinel"), you can remotely connect to it by using a web browser.

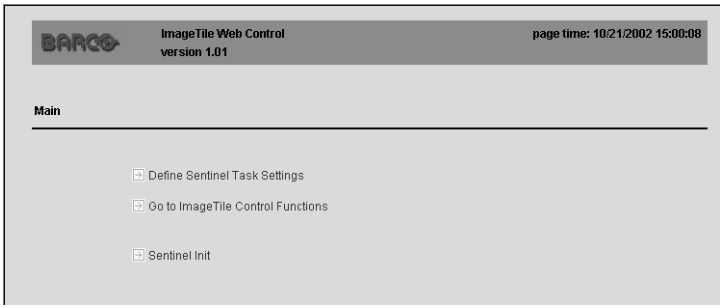
To connect to the ImageTile, proceed as follows:

1 Make sure MediCal Pro is not running.

2 Start a web browser (Microsoft Internet Explorer 5.5 or higher).

3 Enter the panel's IP address or host name.

The Sentinel main page appears.



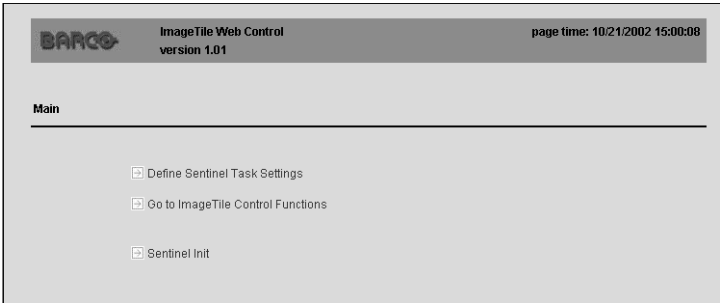
When the connection fails

- When the connection fails, you have probably entered a wrong address or host name. Try entering the address or host name again in the web browser.
- Check that both the ImageTile and the computer on which you wish to establish the connection, are connected to the network.
- When the connection still fails, please refer to the chapter "Connection problems" in the previous section.

ENTERING THE SENTINEL MAIL ADDRESS

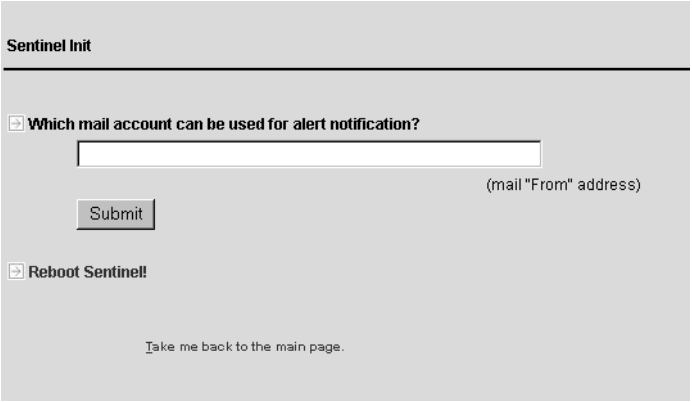
In the ImageTile Web Control pages, you must enter the "From" address that will be used in warning and error mails generated by Sentinel.

We assume you have established connection with the ImageTile and your web browser displays the Sentinel main page.



Proceed as follows:

1 In the Sentinel main page, click on "Sentinel Init". The Sentinel init page appears.


Sentinel Init
Which mail account can be used for alert notification?
(mail "From" address)
Submit
Reboot Sentinel!
Take me back to the main page.

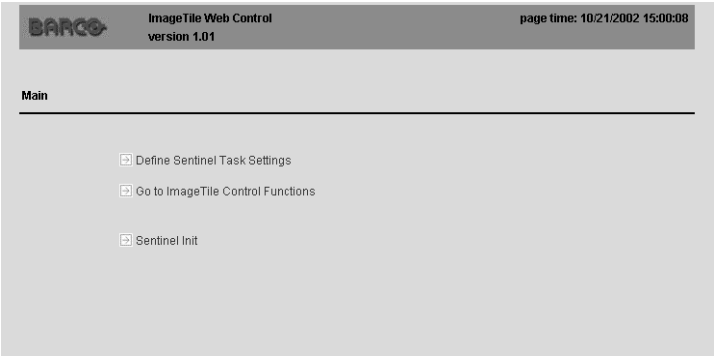
2 Enter the "From" address that will be used in the warning and error mails generated by the Sentinel board. Then click on **Submit**.

SETTING SENTINEL REPORTING SETTINGS

Use this function to define the conditions when an automatic mail must be generated and to which person(s) the mail must be sent.

This mail will be sent when a particular parameter exceeds a predefined threshold.

We assume you have established connection with the ImageTile and your web browser displays the Sentinel main page.



Proceed as follows:

1 In the Sentinel main page, click on "Define Sentinel Task Settings".

2 You can change the Warning and Error settings for 2 parameters: Backlight and Luminance.

Backlight expresses the relation between the maximum possible backlight drive and the actual backlight drive. It is an indication of how much the backlight is aged.

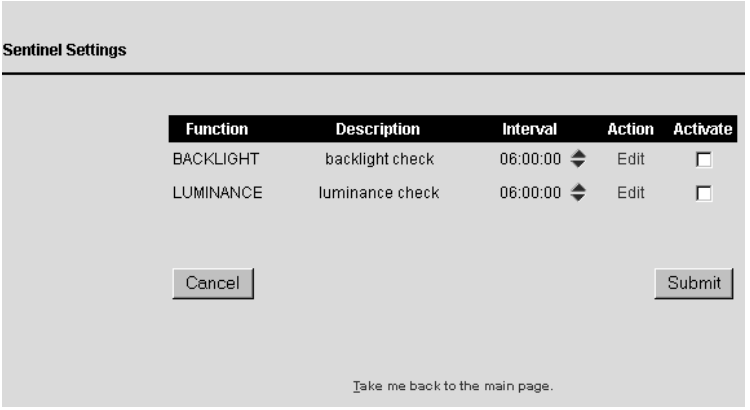
In a display with a new backlight, a certain drive voltage is applied to the backlight, in order to obtain the calibrated target light output.

As the backlight ages, it becomes less powerful. As a consequence, a higher drive voltage must be applied to the backlight in order to obtain the same calibrated light output.

The drive voltage cannot increase infinitely. It is limited to a certain maximum. The backlight reserve value indicates how far the actual drive voltage is away from the maximum drive voltage.

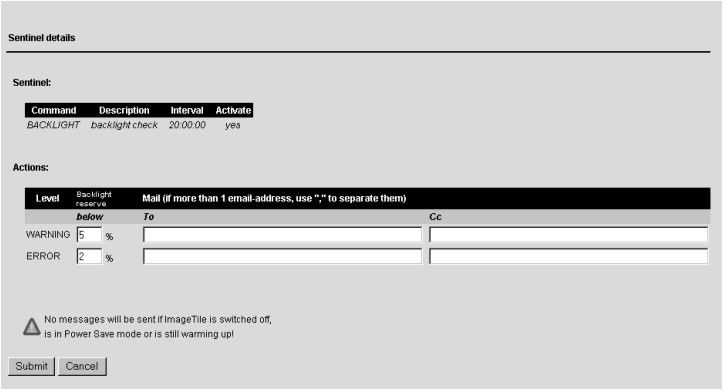
E.g., a backlight reserve of 5% indicates the actual backlight drive has almost reached the maximum possible value.

Luminance expresses the relation between the actual luminance and the target luminance in %.



3 To change the interval of checking the parameter, click on the displayed interval and use the up and down button to change the interval.

4 To edit the reporting settings, click on "Edit".



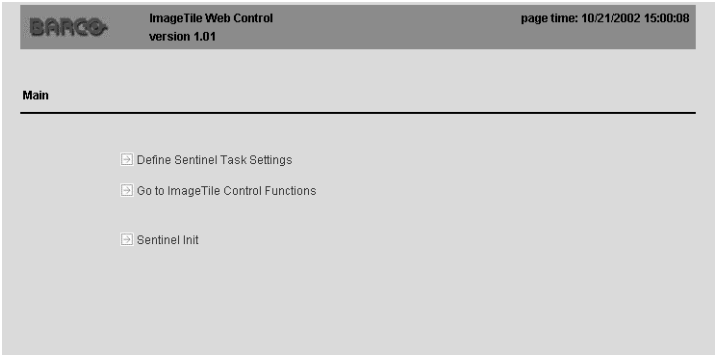
- Fill in the Warning and Error threshold values. Typical values are 2% for error and 5% for warning tolerance.
- Fill in the e-mail recipient address in the "To" fields. The address of the persons that need to receive a copy of the automatically generated mail must be filled in in the "Cc" fields.

5 Click on the "Submit" button.

CHECKING PANEL PARAMETERS ON-LINE

Use this function to check panel parameters on-line.

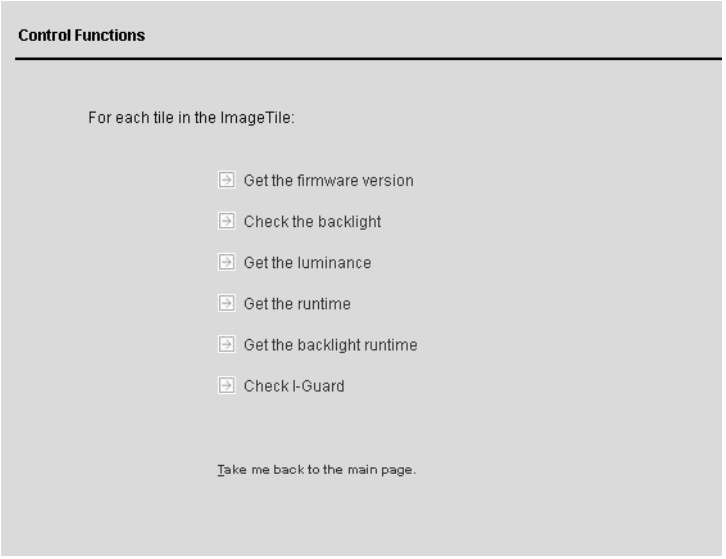
We assume you have established connection with the ImageTile and your web browser displays the Sentinel main page.



Proceed as follows:

1 In the Sentinel main page, click on "Go to ImageTile Control Functions".

The Control Functions page appears.



2 Select the check you wish to perform.

You can perform the following checks:

Get the firmware version ..... Returns the firmware versions for each tile

Check the backlight ..... Returns the backlight reserve for each tile, compared to the maximum backlight reference of 500 cd/m², calibrated.

Get the luminance ..... Returns the luminance value for each tile

Get the display runtime ..... Returns the total runtime of each tile

Get the backlight runtime ..... Returns the runtime of the backlight of each tile

Check I-Guard ..... Returns the status of each tile's I-Guard (OK or Not OK)

Note: If the ImageTile is in power-save mode (e.g., stand-by), the following functions will fail: Check Backlight, Get Luminance, and Check I-Guard.

REBOOTING SENTINEL

The purpose of the Reboot Sentinel function is to assign a new IP-address to the ImageTile.

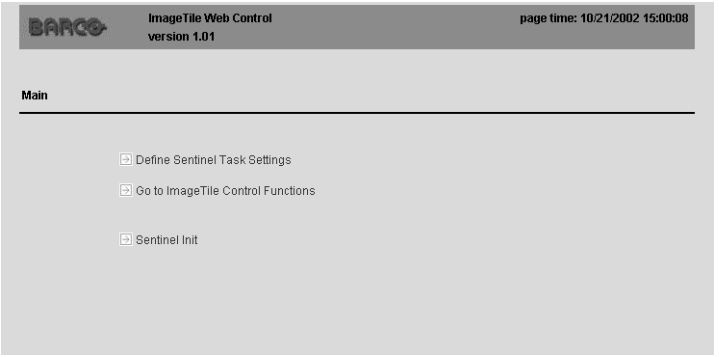
More information about this, you can find in the previous section "Setting up Sentinel".

To reboot Sentinel

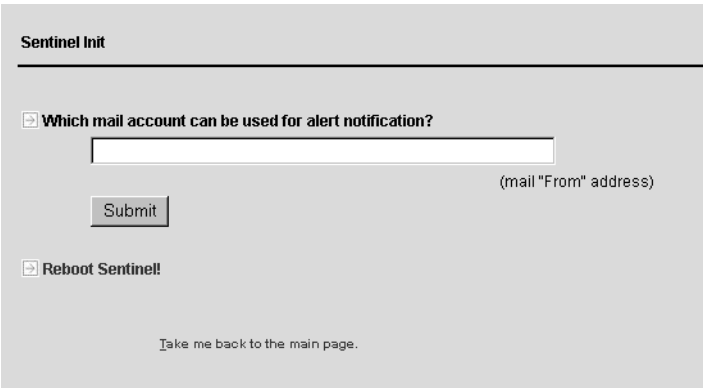
We assume you have established connection with the ImageTile and your web browser displays the Sentinel main page.

Proceed as follows:

1 In the Sentinel main page, click on "Sentinel Init". The Sentinel init page appears.



2 Select "Reboot Sentinel"


Sentinel Init
Which mail account can be used for alert notification?
(mail "From" address)
Submit
Reboot Sentinel!
Take me back to the main page.

3 Sentinel now reboots, allowing you to change the Internet Protocol address properties.

More information about this, you can find in the previous section "Setting up Sentinel".

If you do not wish to change the address settings

You may have selected the "Reboot Sentinel" function without the intention to assign a new IP-address. In that case, you do not have to do anything.

Sentinel will reboot. After two minutes, the ImageTile will be reconnected to the network automatically, using the old IP-address.

After the connection has been re-established, your web browser may display a blank page. Refresh the Sentinel page in your browser by re-entering the ImageTile IP-address in the web browser's address field.

MEDICAL SOFTWARE INSTALLATION AND USAGE

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MEDICAL SOFTWARE INSTALLATION

Install MediCal on the PC. Follow the instructions from the MediCal User Guide.

Important: Do not forget you have to have Administrator privileges to install or uninstall MediCal.

OPTICAL SENSOR CONNECTION

If you are using an X-Rite DTP92 sensor for conformity calibration and consistency check, connect the sensor to one of the display's **Sensor** plugs or to a free PC COM port.

USING MEDICAL

You can now use MediCal to configure the complete configuration and set up the Q/A tasks.

Proceed as follows:

1 Start MediCal. If appropriate, you can connect to MediCal Administrator.
2 Set up the configuration in MediCal by using the **Configuration Setup** wizard.
3 If necessary, align the displays' geometry settings.
4 For all the displays in the system, check if the DPMS setting is turned on. Therefore, right-click on the display icon and select **Properties...** from the drop-down menu. Then click on **Details...** Check if the **Powersave** option is checked. If not, check it. This is necessary to use the DPMS possibilities of the imaging board.
5 For all the displays in the system, define (if necessary) and select a Preset.
6 After selecting the Preset, MediCal starts consistency calibration automatically.
7 Define the Q/A task schedule.
8 Run the due tasks.

Please refer to the MediCal User Guide for more information.

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APPENDIX

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MAINTENANCE

Panel

Take care not to damage or scratch the panel. Clean with a soft woolen or cotton towel. Use a watery solution or a mild commercial glass cleaning product.

Cabinet

Do not use chemical cleaning products, benzene, toluene, xylene or other solvents. Clean with a soft cloth dampened with mild detergent and water. Repeat with water only and wipe dry with a dry cloth.

TROUBLESHOOTING

Pixel Faults

Permanently dark or bright pixels can happen to TFT displays. 20 or less permanently dead pixels do not make out a good case for exchanging the unit.

Please contact our Customer Service Department if the number of pixel faults exceeds the above-mentioned figure.

TECHNICAL SPECIFICATIONS

Picture panel (per head)
20.8-inch diagonal viewable screen TFT (thin film transistor) active matrix, greyscale liquid crystal display

Coating
High efficiency anti-reflective coating (HEA - glass transparency: 96%)

Resolution (per head)
Native: 1536 x 2048

Display area (H x V) (per head)
423.7 x 318 (mm)

Viewing angle (@ 10/1 contrast)
Vertical: 170º
Horizontal: 170º

Input signals
Possible resolutions:

- 640 x 350 @ 85 Hz
- 720 x 400 @ 75 Hz
- 1536 x 2048 @ 60 Hz

Video: Complying to DVI Rev 1.0 specifications
Sync: Complying to DVI Rev 1.0 specifications

Native color resolution
8 bits / sub-pixel

Signal system
DVI Digital

Luminance
500 cd/m^2 (calibrated)
700 cd/m^2 (maximum)

Contrast ratio
600/1 (in dark environment)

Response time
50ms (@ 25° C after 30 min warmup)

Pixel Pitch
0.207 mm (H) x 0.207 mm (V)

Controls

Central stand-by button, DPMS compliant

Front access to all connectors (USB)

Input connectors
DVI dual channel

Power supply

Dynamic 90 -264 Vac (47-63 Hz)

Power consumption (nominal)

Dual-head +/- 140 W, Quad-head +/- 290 W

Configuration

Standard wall-mounting kit included; for other mounting options, please consult Barco

Safety

This apparatus conforms to: UL 2601-1, c-UL CAN/CSA-22.2 No. 601.1-M90, IEC 601-1, CE

Operating Temperature
0°C to 35°C

Storage Temperature
-20°C to 60°C

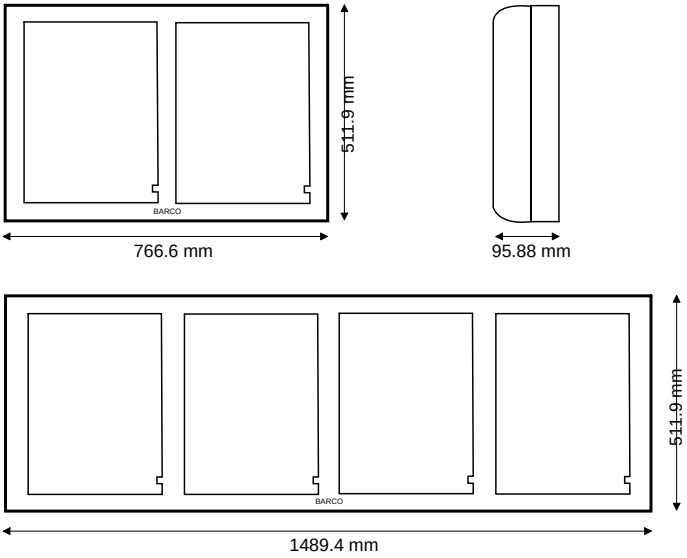
Weight (mounting bracket excluded)
Dual-head unpackaged: 24 kg

Dual-head packaged: 75 kg

Quad-head unpackaged: 43 kg

Quad-head packaged: 125 kg

Dimensions



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